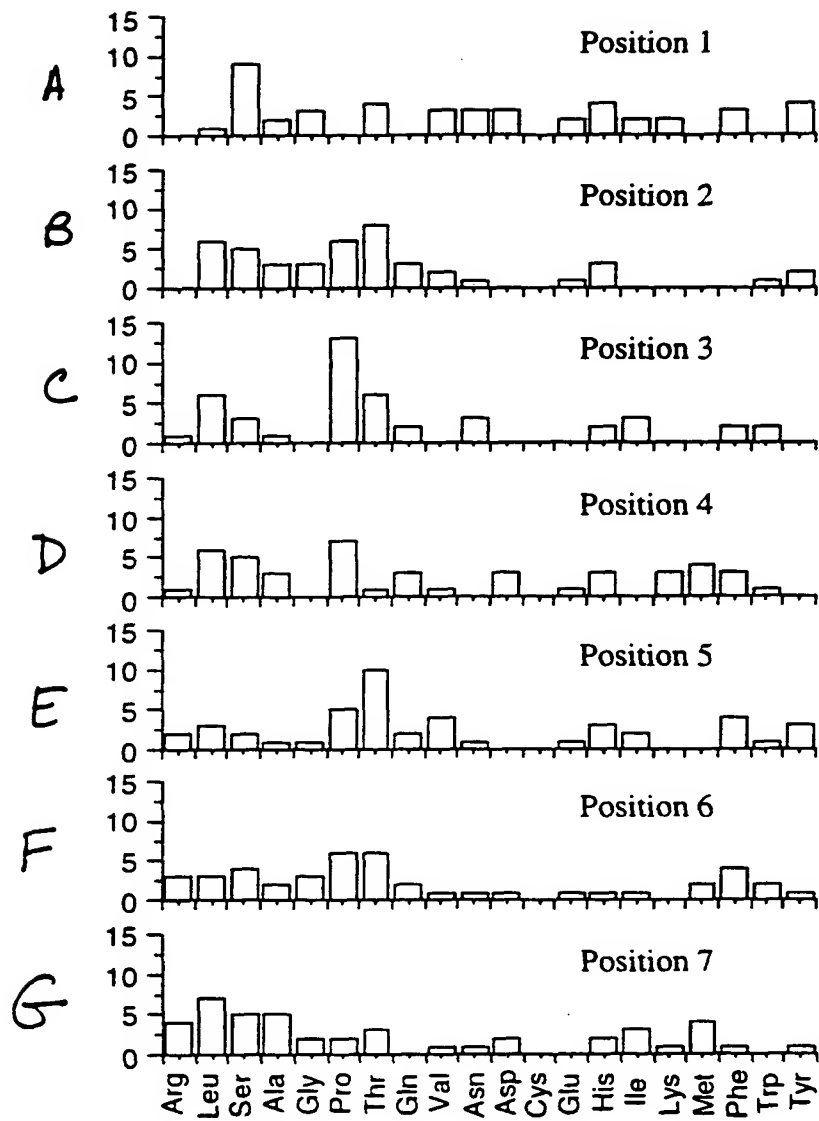




Figure 1





Sequences 1-40 (some did not sequence) panning 3 expt 1

His Thr Thr Val Tyr Gly Ala Gly  
CAT ACG ACT GTT TAT GGG GCT GGT

Thr Glu Thr Pro Tyr Pro Thr Gly  
ACT GAG ACG CCT TAT CCT ACT GGT

Leu Thr Thr Pro Phe Ser Ser Gly  
CTT ACT ACT CCG TTT TCG TCG GGT

Gly Val Pro Leu Thr Met Asp Gly  
GGT GTG CCT CTT ACG ATG GAT GGT

Lys Leu Pro Thr Val Leu Arg Gly  
AAG CTT CCG ACT GTT CTG CGG GGT

Cys Arg Phe His Gly Asn Arg Gly  
TGT CGC TTT CAT GGG AAT CGT GGT

Tyr Thr Arg Asp Phe Glu Ala Gly  
TAT ACT CGG GAT TTT GAG GCT GGT

Ser Ser Ala Ala Gly Pro Arg Gly  
TCG TCG GCG GCT GGT CCG CGG GGT

Ser Leu Ile Gln Tyr Ser Arg Gly  
TCT CTG ATT CAG TAT TCG AGG GGT

Asp Ala Leu Met Trp Pro UKN Gly  
GAT GCT CTT ATG TGG CCT NTG GGT

Ser Ser UKN Ser Leu Tyr Ile Gly  
TCG TCT CNT TCG TTG TAT ATT GGT

Phe Asn Thr Ser Thr Arg Thr Gly  
TTT AAT ACT TCG ACG CGT ACG GGT

Thr Val Gln His Val Ala Phe Gly  
ACT GTG CAG CAT GTT GCT TTT GGT

Asp Tyr Ser Phe Pro Pro Leu Gly  
GAT TAT TCT TTT CCG CCT CTT GGT

Val Gly Ser Met Glu Ser Leu Gly  
GTG GGG TCT ATG GAG TCG TTG GGT

Phe UKN Pro Met Ile UKN Ser Gly  
TTT CAN CCG ATG ATT NGN TCG GGT

Ala Pro Pro Arg Val Thr Met Gly  
GCG CCT CCG CGG GTT ACT ATG GGT

FIGURE 1H.



Ile Ala Thr Lys Thr Pro Lys Gly  
ATT GCT ACG AAG ACG CCT AAG GGT

Lys Pro Pro Leu Phe Gln Ile Gly  
AAG CCT CCG TTG TTT CAG ATT GGT

Tyr His Thr Ala His Asn Met Gly  
TAT CAT ACT GCT CAT AAT ATG GGT

Ser Tyr Ile Gln Ala Thr His Gly  
TCT TAT ATT CAG GCT ACG CAT GGT

Ser Ser Phe Ala Thr Phe Leu Gly  
TCG TCT TTT GCT ACT TTT CTT GGT

Thr Thr Pro Pro Asn Phe Ala Gly  
ACG ACT CCG CCG AAT TTT GCG GGT

Ile Ser Leu Asp Pro Arg Met Gly  
ATT TCT CTT GAT CCG CGT ATG GGT

Ser Leu Pro Leu Phe Gly Ala Gly  
TCG CTG CCG CTG TTT GGT GCG GGT

Asn Leu Leu Lys Thr Thr Leu Gly  
AAT CTT CTT AAG ACT ACG CTT GGT

Asp Gln Asn Leu Pro Arg Arg Gly  
GAT CAG AAT CTG CCG CGG CGG GGT

Ser His Phe Glu Gln Leu Leu Gly  
AGT CAT TTT GAG CAG CTG CTT GGT

Thr Pro Gln Leu His His Gly Gly  
ACG CCG CAG CTT CAT CAT GGT GGT

Ala Pro Leu Asp Arg Ile Thr Gly  
GCG CCT CTG GAT AGG ATT ACG GGT

Phe Ala Pro Leu Ile Ala His Gly  
TTT GCG CCT CTT ATT GCG CAT GGT

Ser Trp Ile TER Thr Phe Met Gly  
TCG TGG ATT TAG ACG TTT ATG GGT

Asn Thr Trp Pro His Met Tyr Gly  
AAT ACT TGG CCT CAT ATG TAT GGT

Glu Pro Leu Pro Thr Thr Leu Gly  
GAG CCT CTT CCG ACT ACG TTG GGT

His Gly Pro His Leu Phe Asn Gly  
CAT GGG CCT CAT CTG TTT AAT GGT

1 H (cont.)

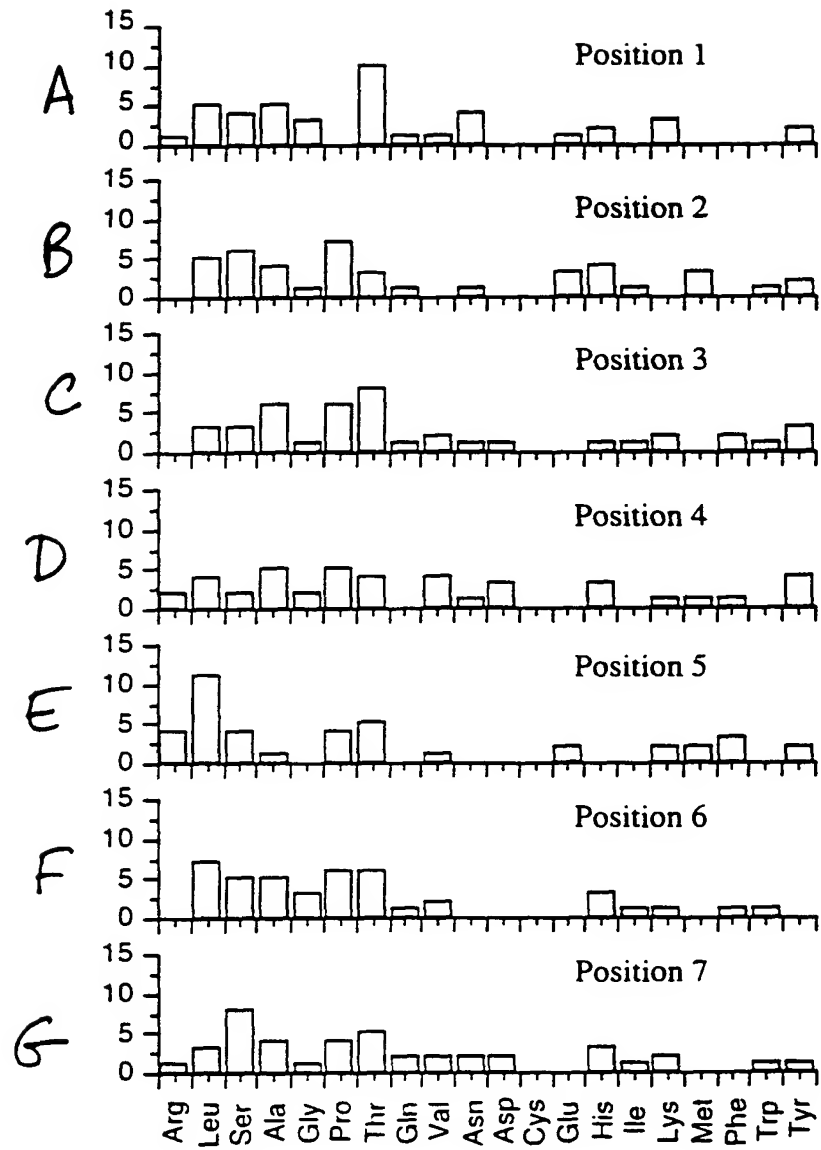


Tyr Leu Asn Ser Thr Leu Ala Gly  
TAT CTG AAT TCT ACG CTT GCT GGT

His Leu His Ser Pro Ser Gly Gly  
CAT CTT CAT AGT CCG TCG GGG GGT

1 H (cont)

Figure 2





Translated sequences 41-80 (not all sequenced) panning #3 exp: #3

Thr Leu Pro His Arg Leu Asn Gly  
ACT CTG CCT CAT CGT CTG AAT GGT

Ser Ser Pro Arg Glu Val His Gly  
TCG AGT CCG AGG GAG GTT CAT GGT

Asn Gln Val Asp Thr Ala Arg Gly  
AAT CAG GTT GAT ACG GCT CGG GGT

Tyr Pro Thr Pro Leu Leu Thr Gly  
TAT CCT ACG CCG CTG CTG ACT GGT

His Pro Ala Ala Phe Pro Trp Gly  
CAT CCT GCT GCT TTT CCT TGG GGT

Leu Leu Pro His Ser Ser Ala Gly  
CTT CTT CCG CAT TCT AGT GCT GGT

Leu Glu Thr Tyr Thr Ala Ser Gly  
CTT GAG ACT TAT ACG GCT TCT GGT

Lys Tyr Val Pro Leu Pro Pro Gly  
AAG TAT GTG CCT CTG CCG CCG GGT

Ala Pro Leu Ala Leu His Ala Gly  
GCG CCG TTG GCT CTG CAT GCG GGT

Tyr Glu Ser Leu Leu Thr Lys Gly  
TAT GAG TCG CTG CTG ACT AAG GGT

Ser His Ala Ala Ser Gly Thr Gly  
TCT CAT GCG GCT TCT GGT ACT GGT

Gly Leu Ala Thr Val Lys Ser Gly  
GGT TTG GCG ACT GTT AAG TCT GGT

Gly Ala Thr Ser Phe Gly Leu Gly  
GGT GCT ACG TCT TTT GGG CTT GGT

Lys Pro Pro Gly Pro Val Ser Gly  
AAG CCG CCT GGG CCG GTG TCG GGT

Thr Leu Tyr Val Ser Gly Asn Gly  
ACT CTT TAT GTT TCT GGG AAT GGT

His Ala Pro Phe Lys Ser Gln Gly  
CAT GCT CCG TTT AAG TCT CAG GGT

Val Ala Phe Thr Arg Leu Pro Gly  
GTG GCG TTT ACG CGG CTT CCG GGT

FIGURE 2H.

OCT 01 2002

3058  
PATENT & TRADEMARK OFFICE

Leu Pro Thr Arg Thr Pro Ala Gly  
CTG CCG ACT CGT ACG CCG GCT GGT

Ala Ser Phe Asp Leu Leu Ile Gly  
GCG AGT TTT GAT CTT TTG ATT GGT

Arg Met Asn Thr Glu Pro Pro Gly  
CGG ATG AAT ACT GAG CCT CCG GGT

Lys Met Thr Pro Leu Thr Thr Gly  
AAG ATG ACT CCT CTG ACG ACT GGT

Ala Asn Ala Thr Pro Leu Leu Gly  
GCG AAT GCG ACG CCT CTG CTG GGT

Thr Ile Trp Pro Pro Pro Val Gly  
ACT ATT TGG CCT CCG CCT GTT GGT

Gln Thr Lys Val Met Thr Thr Gly  
CAG ACT AAG GTG ATG ACG ACG GGT

Asn His Ala Val Phe Ala Ser Gly  
AAT CAT GCT GTT TTT GCT AGT GGT

Leu His Ala Ala UKN Thr Ser Gly  
CTG CAT GCG GCT ANT ACG TCG GGT

Thr Trp Gln Pro Tyr Phe His Gly  
ACG TGG CAG CCG TAT TTT CAT GGT

Ala Pro Leu Ala Leu His Ala Gly  
GCG CCG TTG GCT CTG CAT GCG GGT

Thr Ala His Asp Leu Thr Val Gly  
ACG GCG CAT GAT CTG ACT GTT GGT

Asn Met Thr Asn Met Leu Thr Gly  
AAT ATG ACT AAT ATG CTT ACT GGT

Gly Ser Gly Leu Ser Gln Asp Gly  
GGT TCT GGG CTG TCT CAG GAT GGT

Thr Pro Ile Lys Thr Ile Tyr Gly  
ACG CCG ATT AAG ACG ATT TAT GGT

Ser His Leu Tyr Arg Ser Ser Gly  
TCG CAT CTG TAT CGT TCT AGT GGT

2H (cont)

Figure 3A

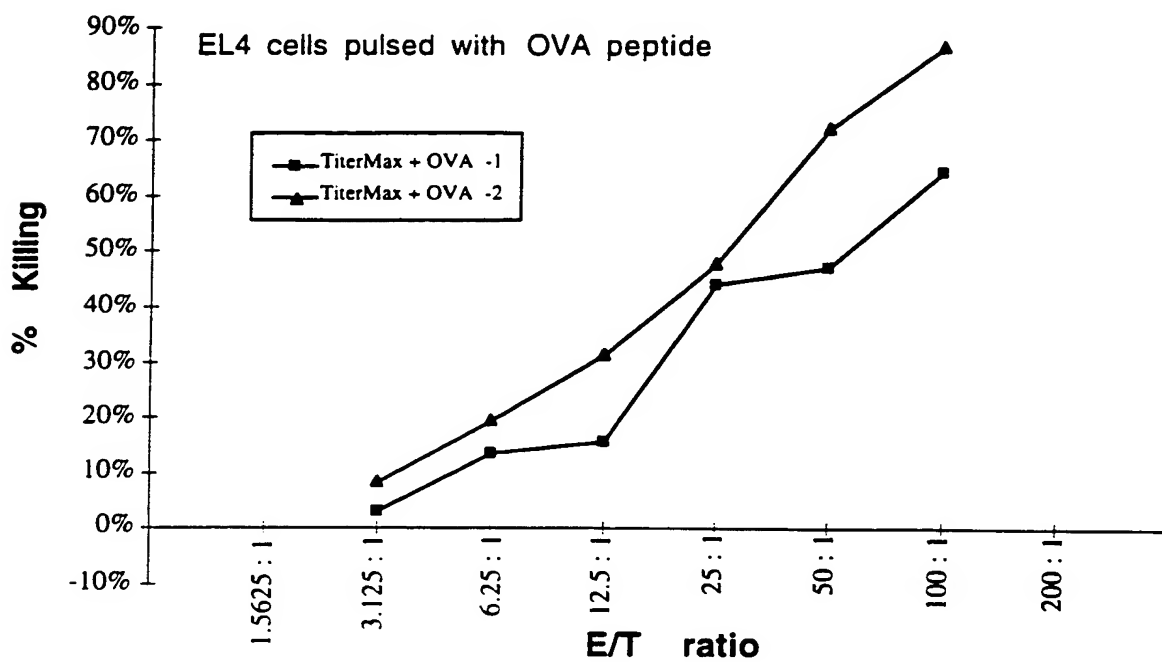


Figure 3B

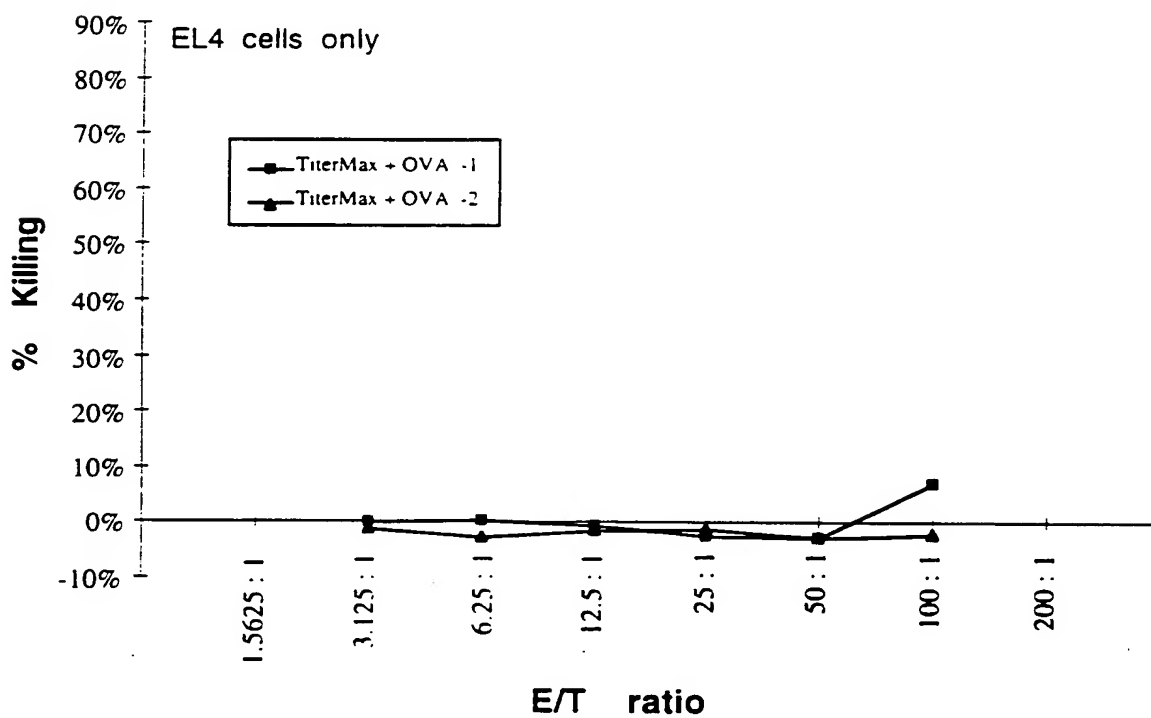




Figure 4A

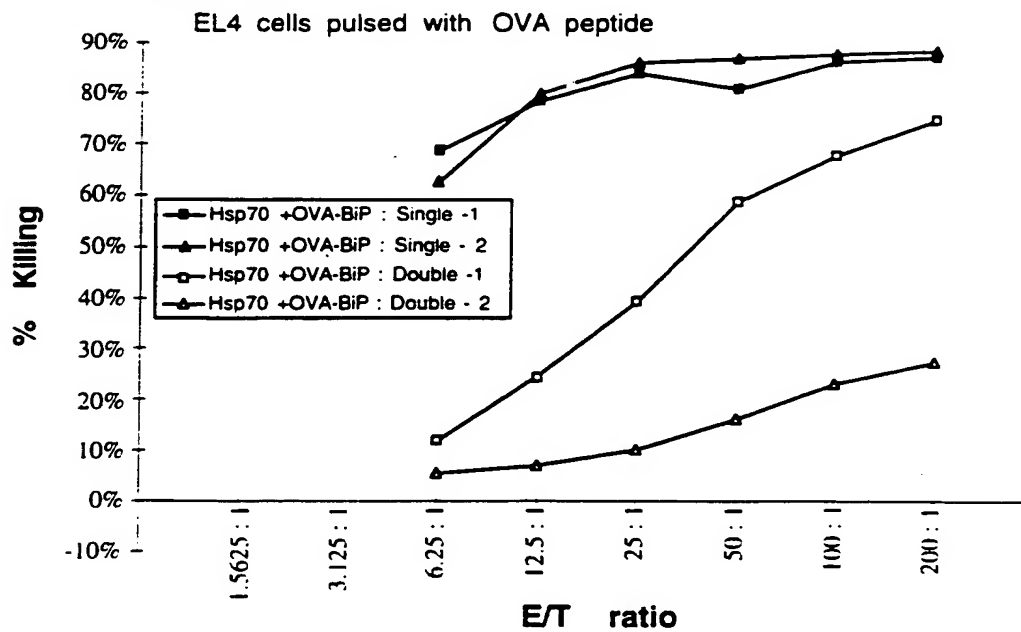


Figure 4B

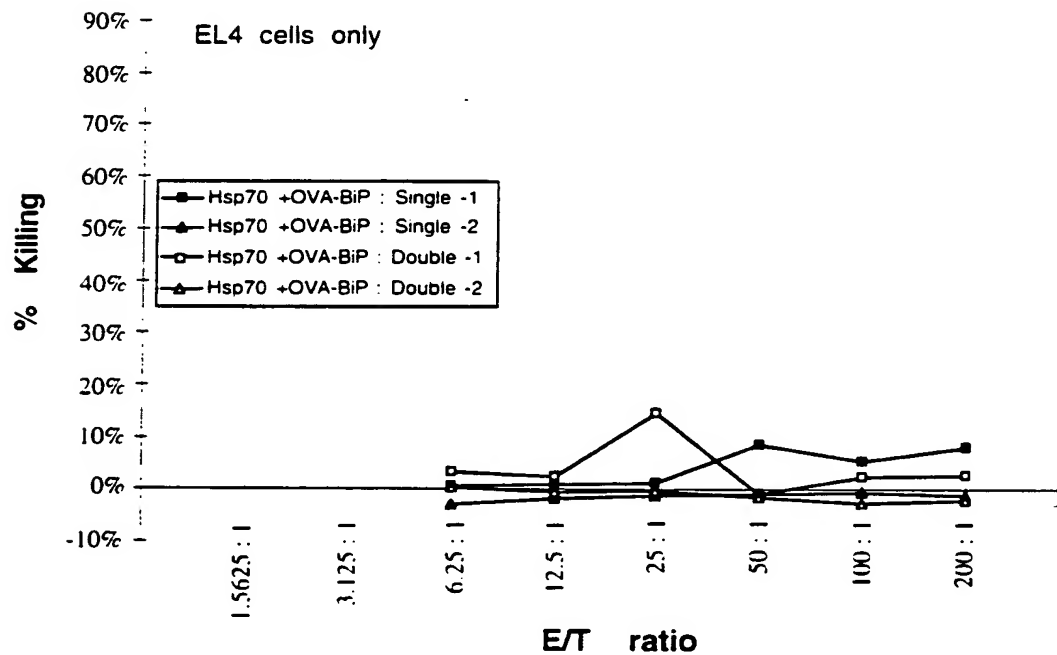




Figure 5A

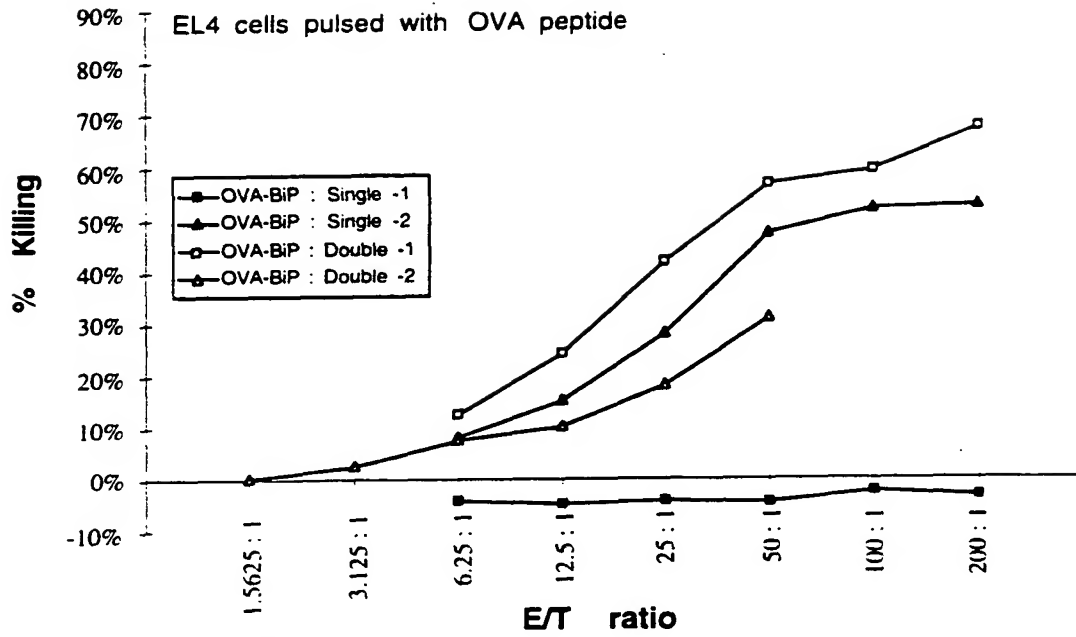


Figure 5B

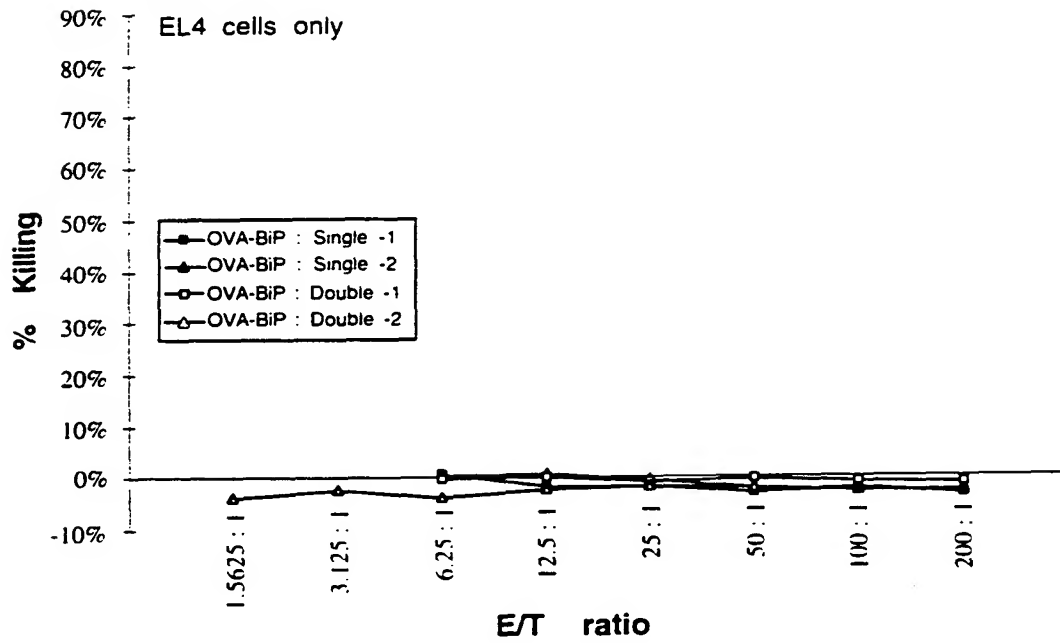




Figure 6A

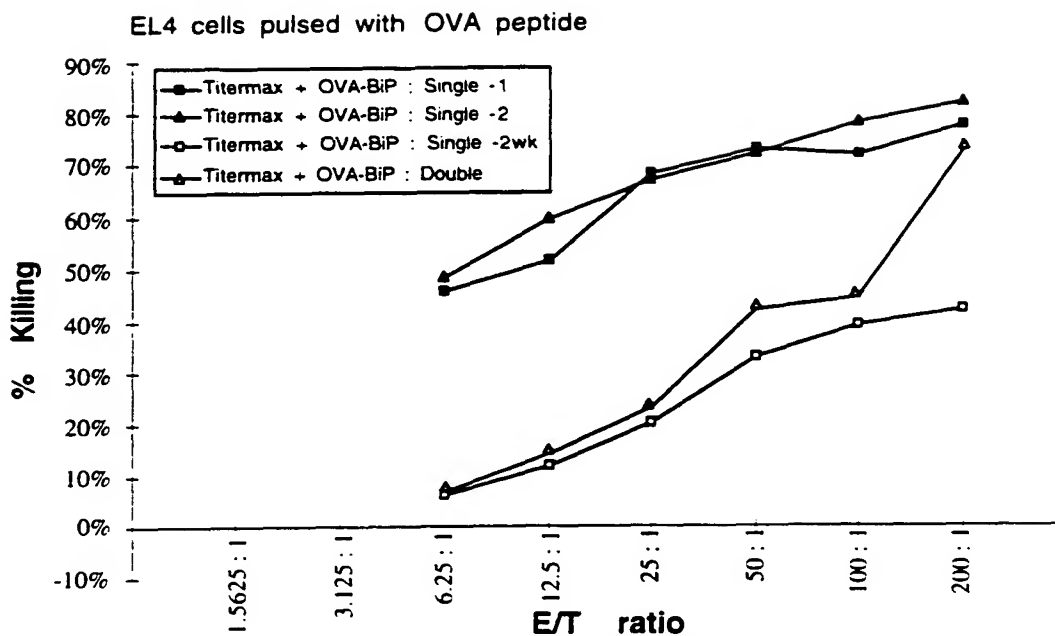
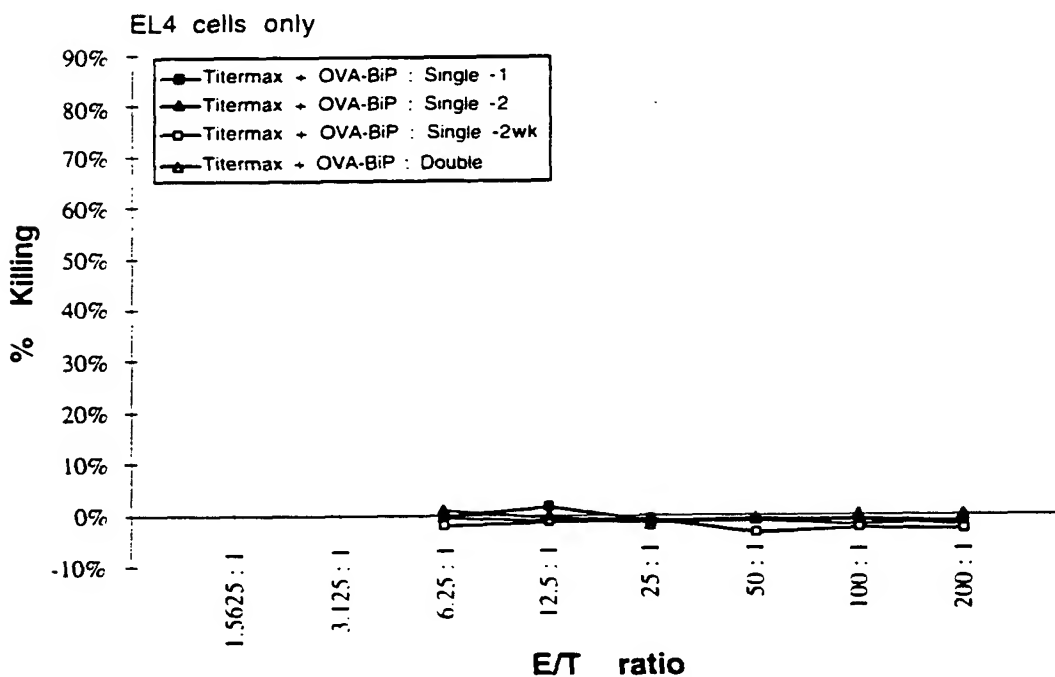


Figure 6B



## Peptide Only Immunizations

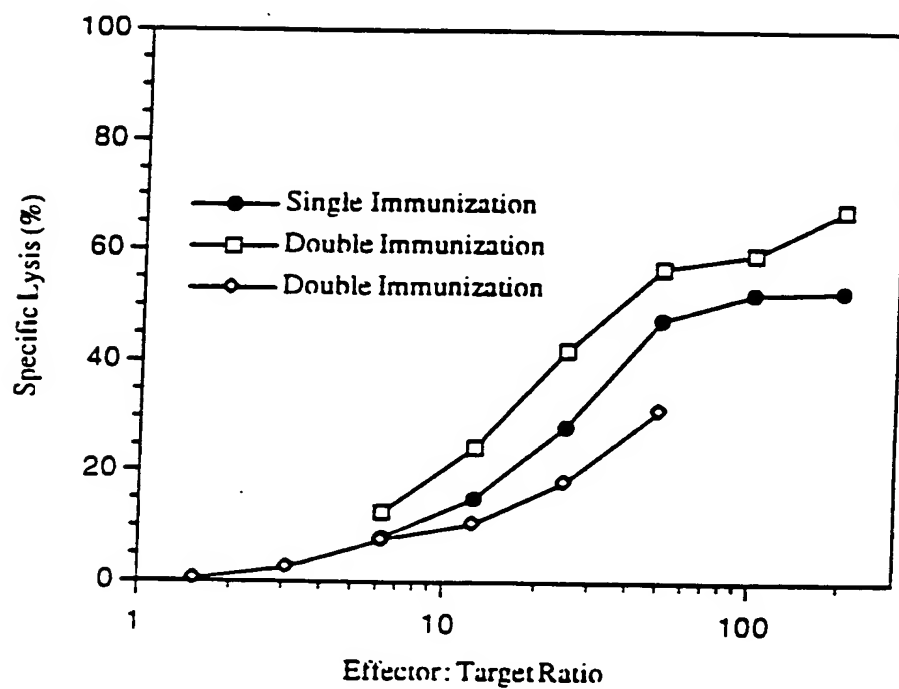


FIGURE 7

tumor protection

6670

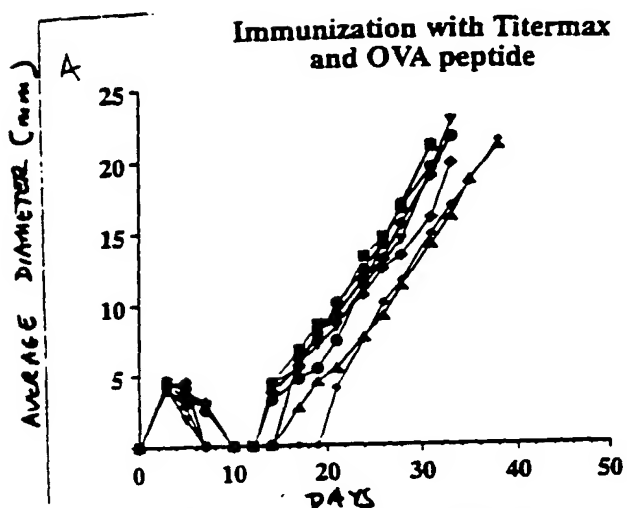


FIGURE 8A

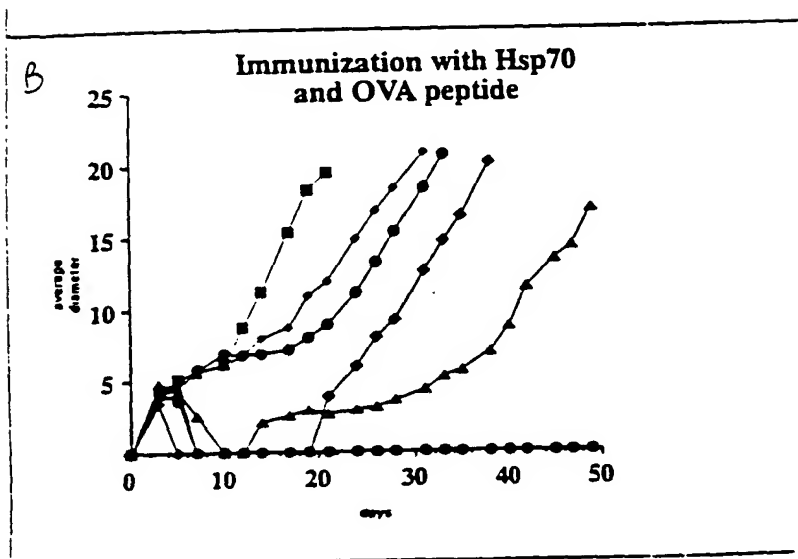


FIGURE 8B

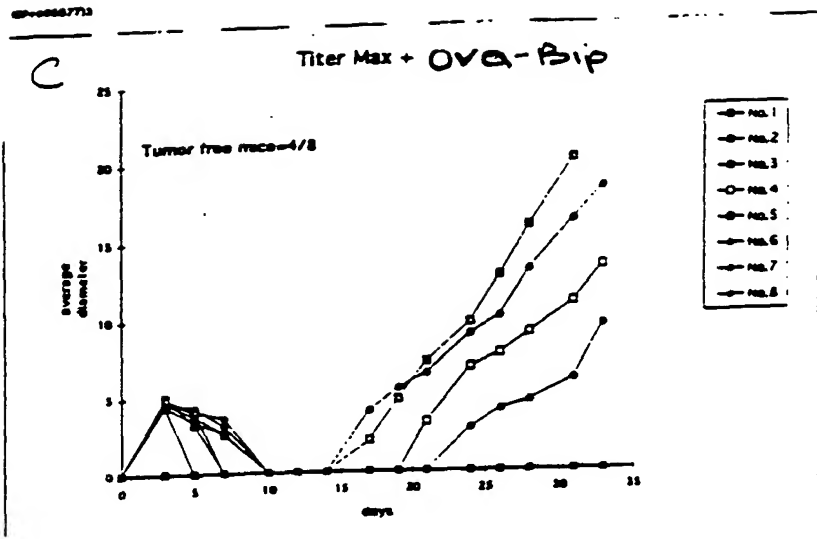


FIGURE 8C

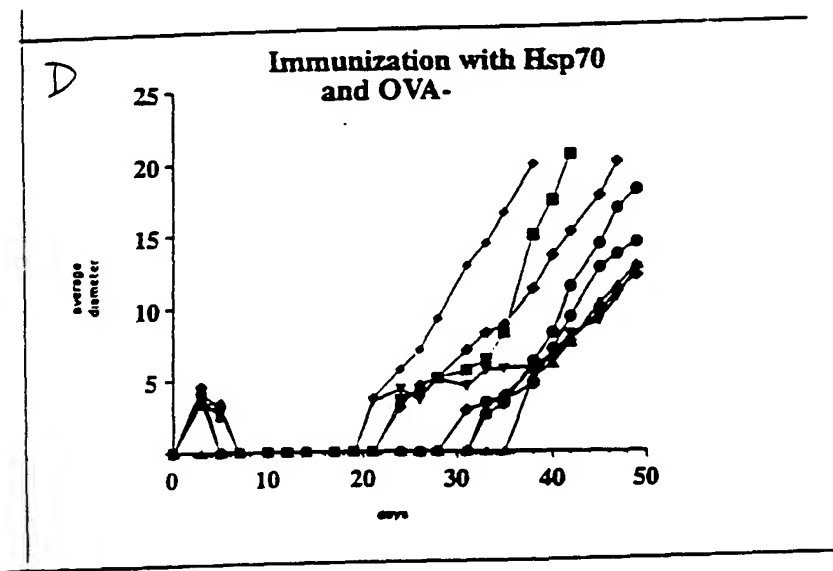
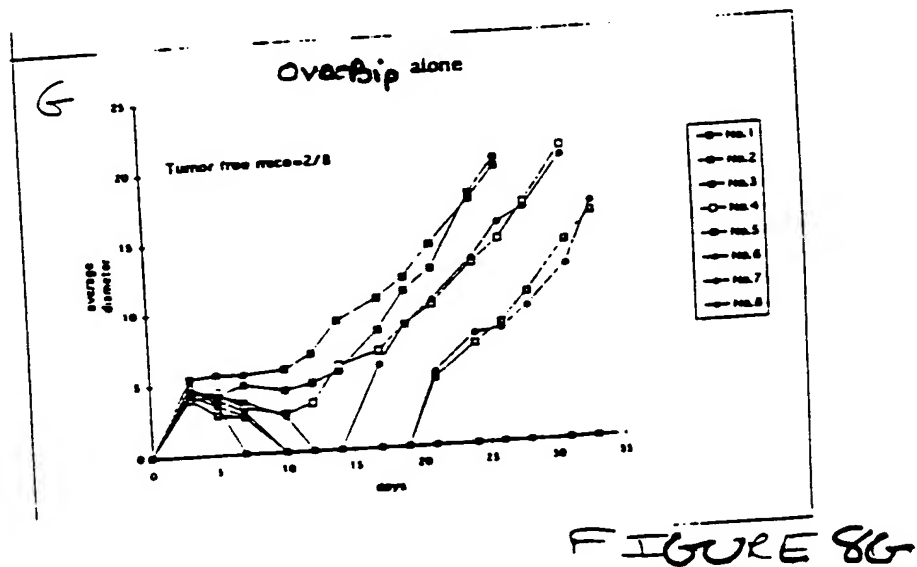
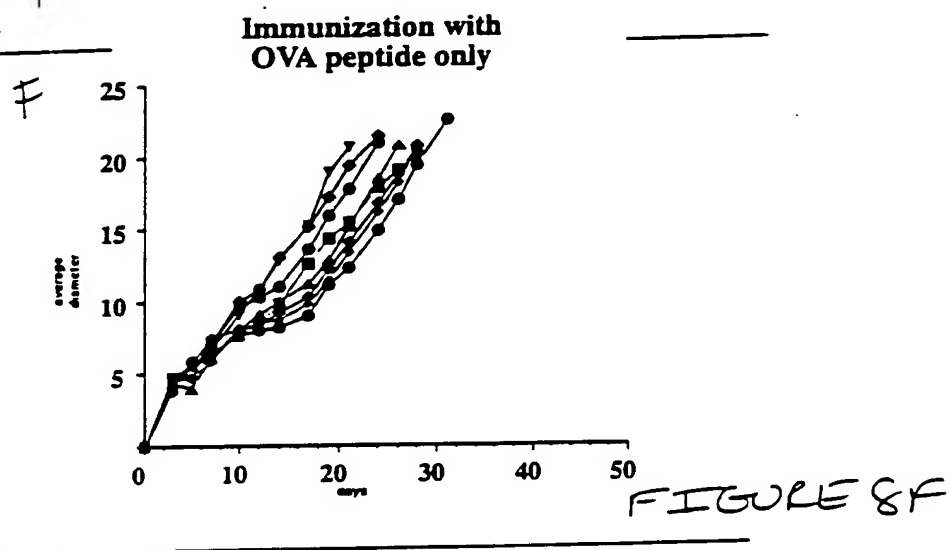
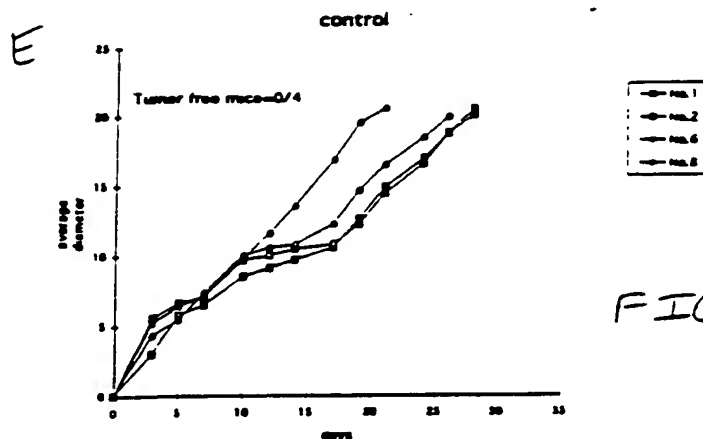


FIGURE 8D





## THE AVERAGE DELAY OF ONSET OF TUMOR GROWTH

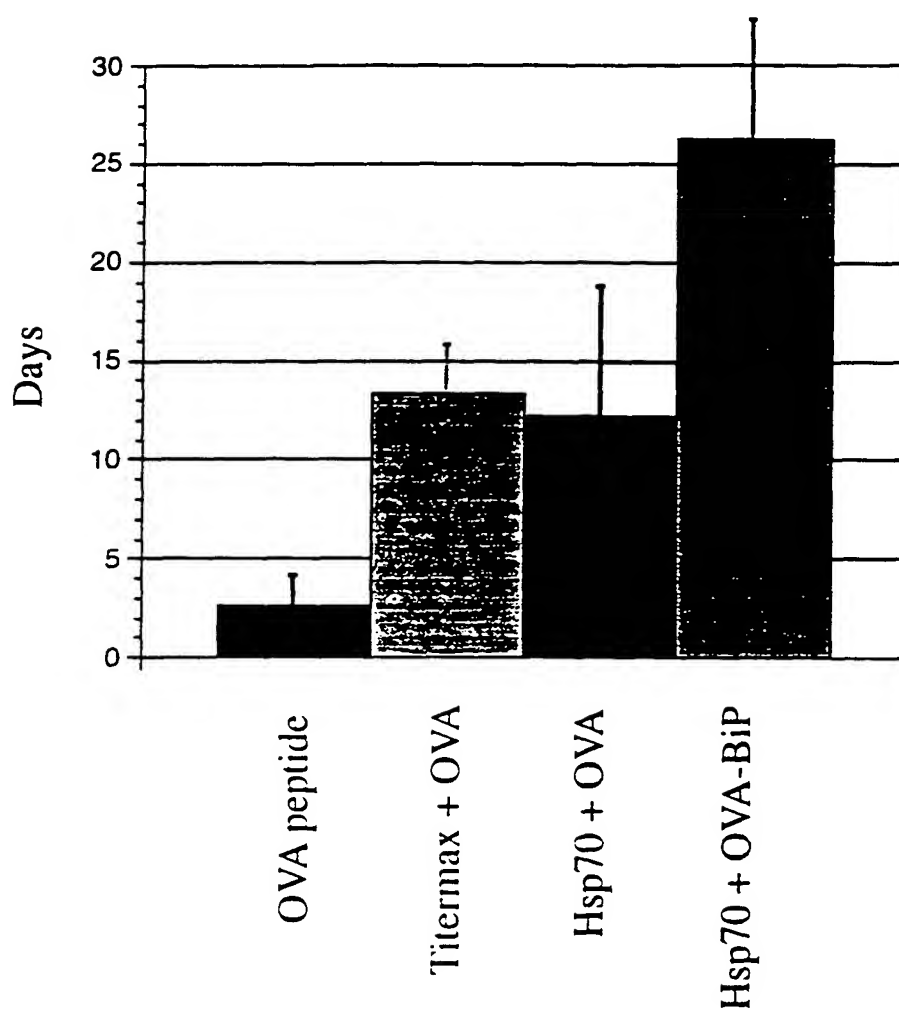
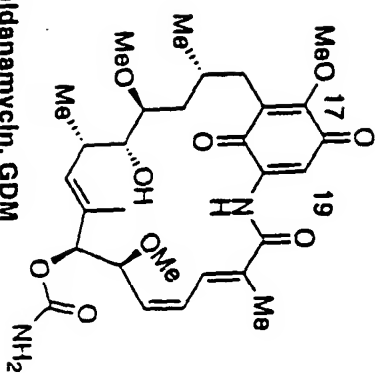


FIGURE 8(H)





Geldanamycin, GDM



Herblimycin A, HA

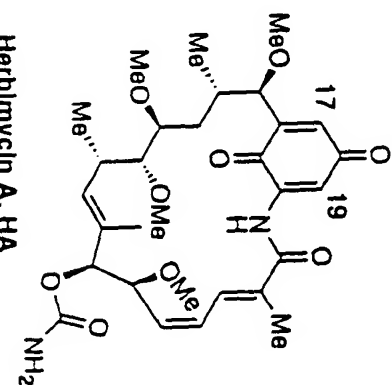


FIGURE 9A

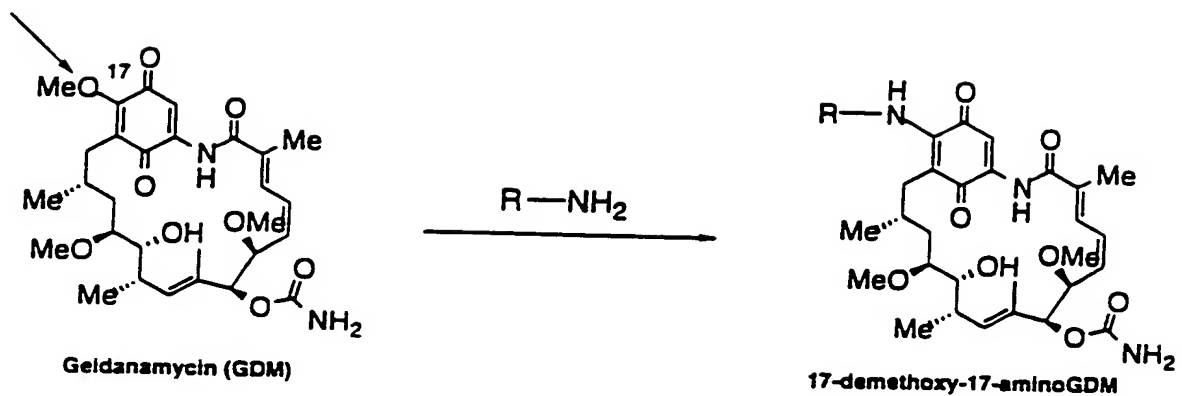


FIGURE 9B

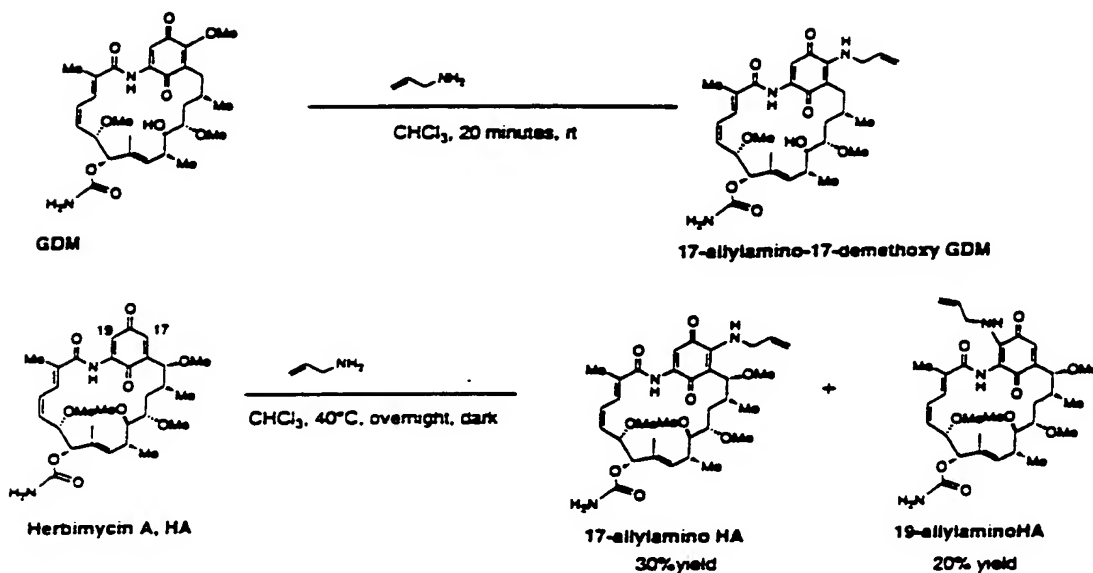


FIGURE 9C.

Figure 9D.

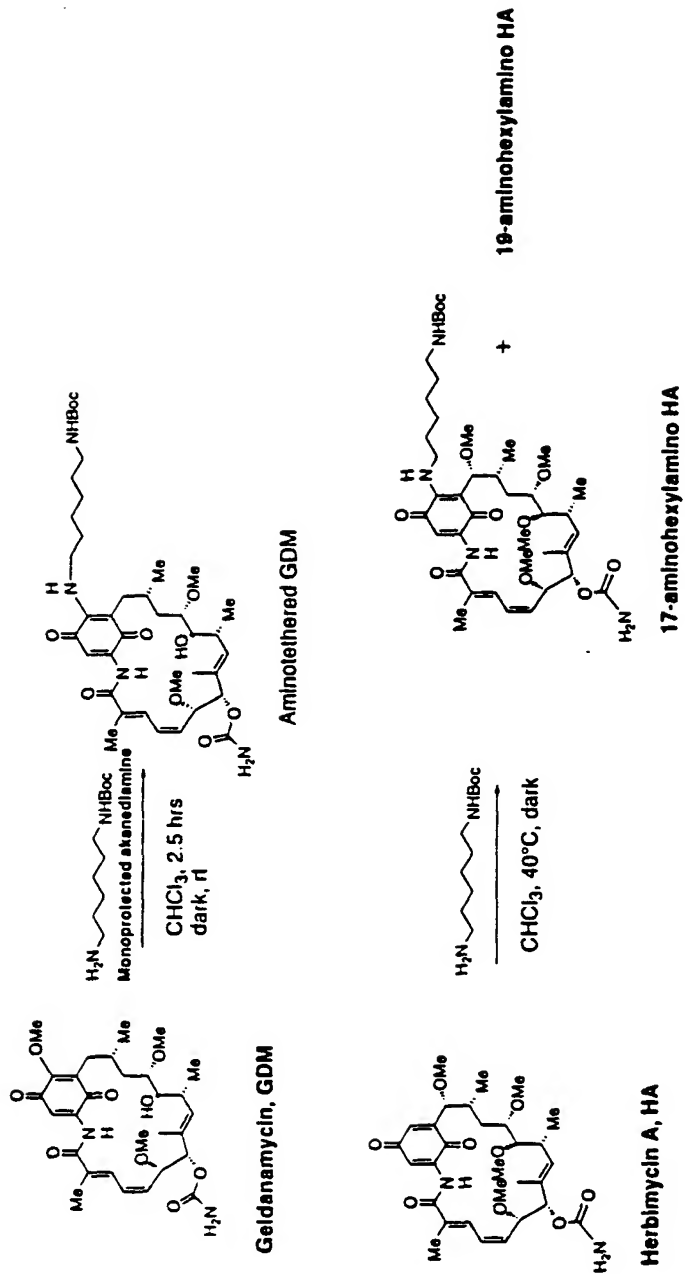


FIGURE 10 A-B

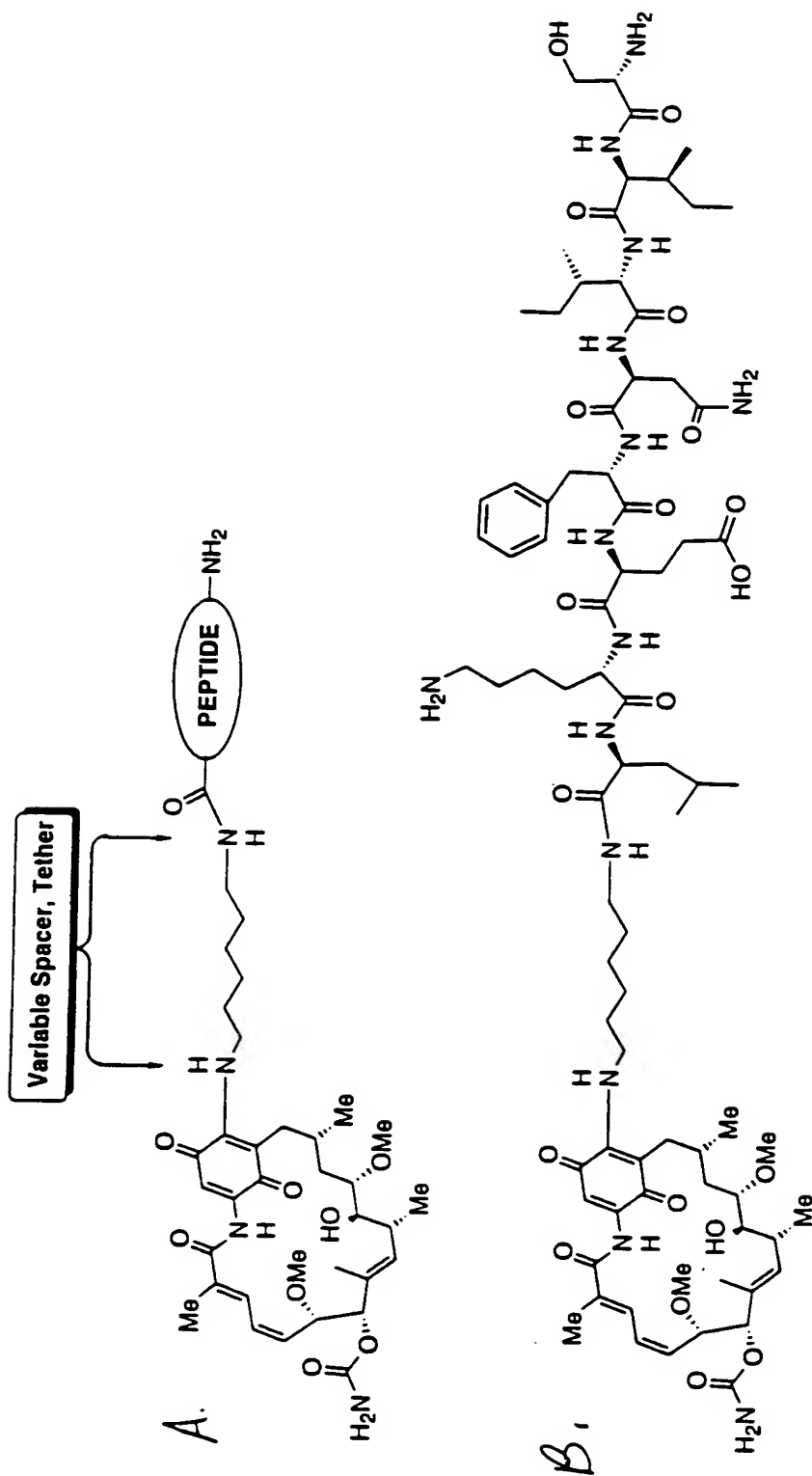


FIGURE 10 c-D

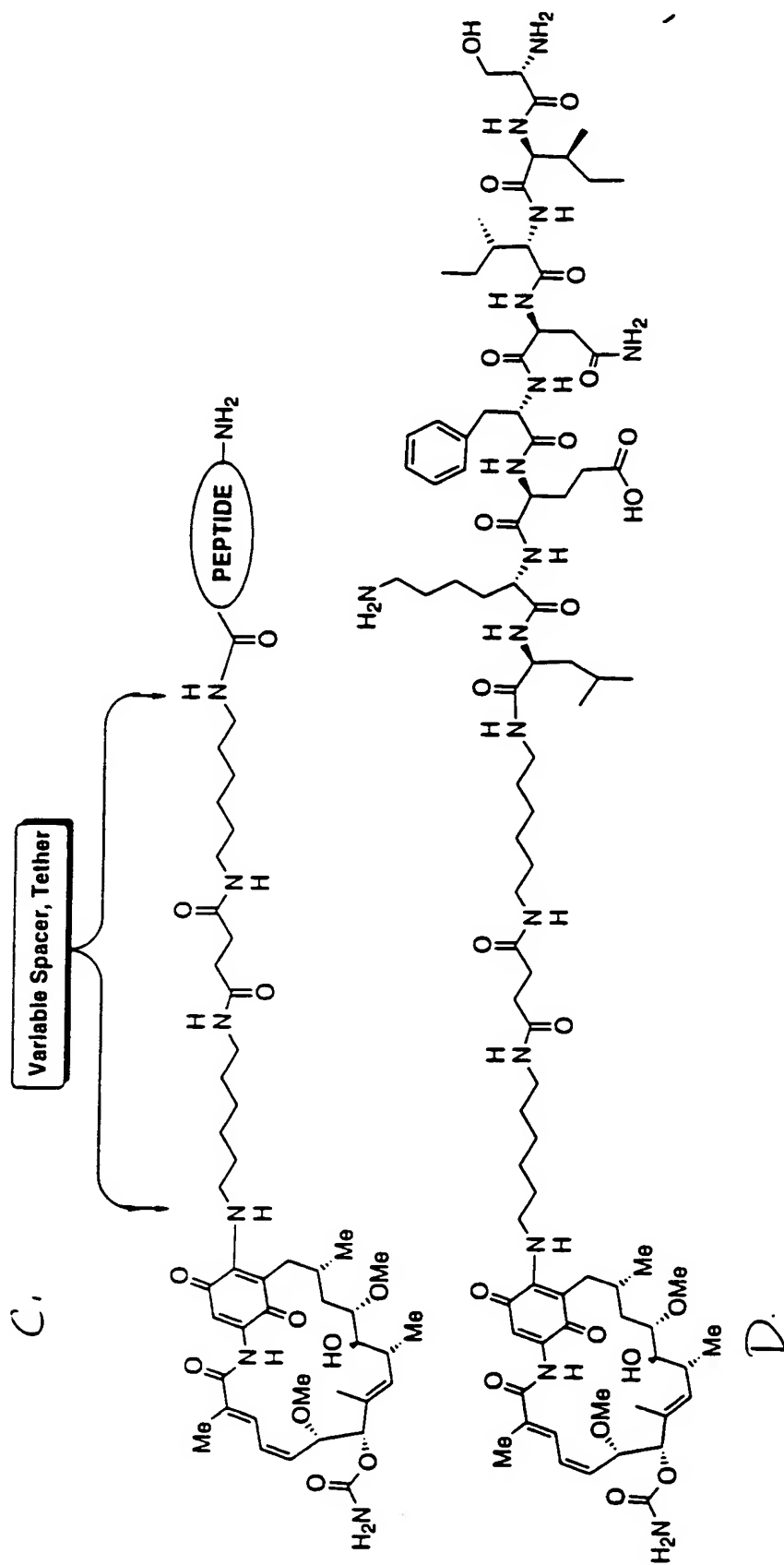
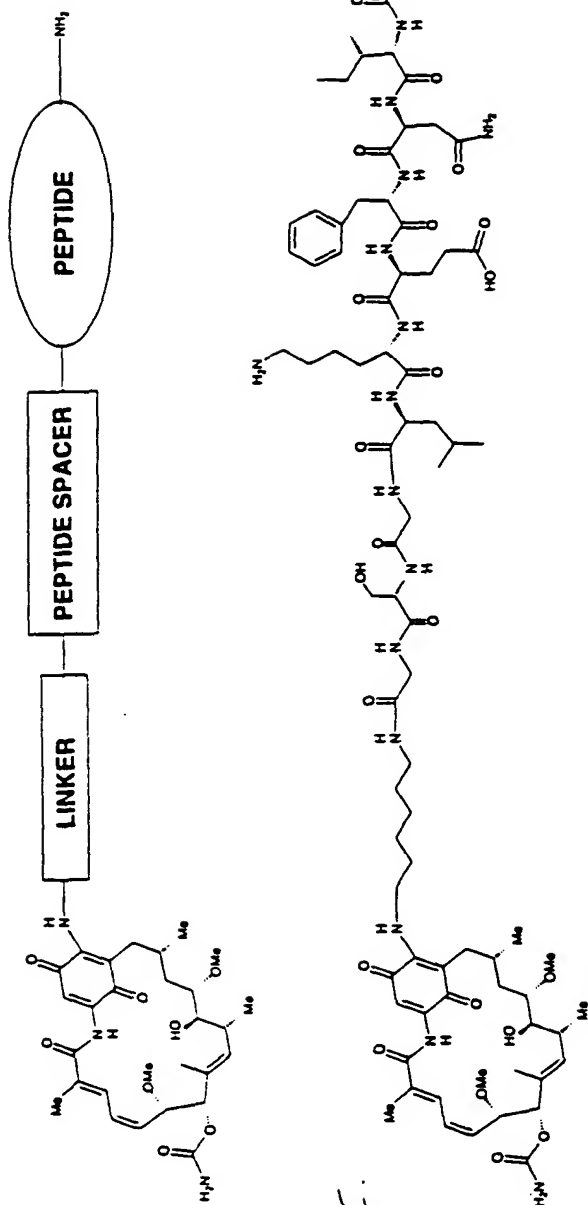


FIGURE 10 E-F

E.



F.

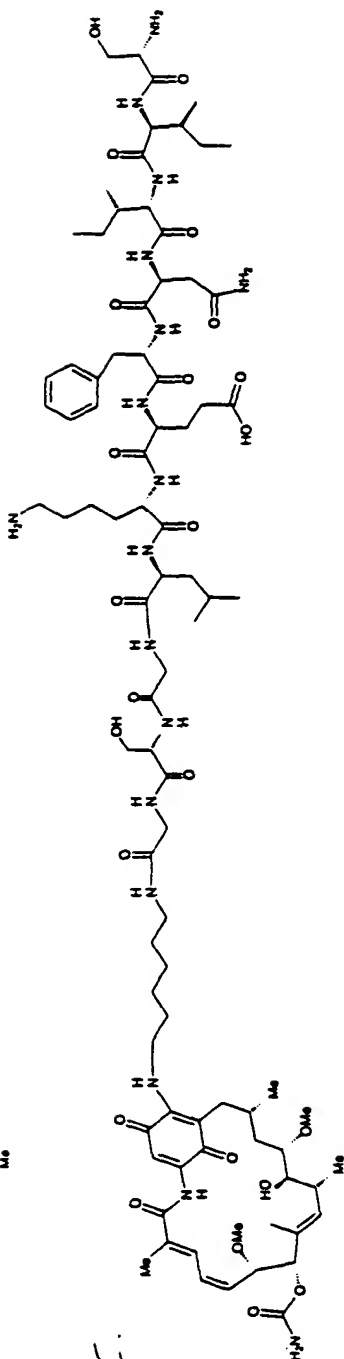


FIGURE 11 A-B

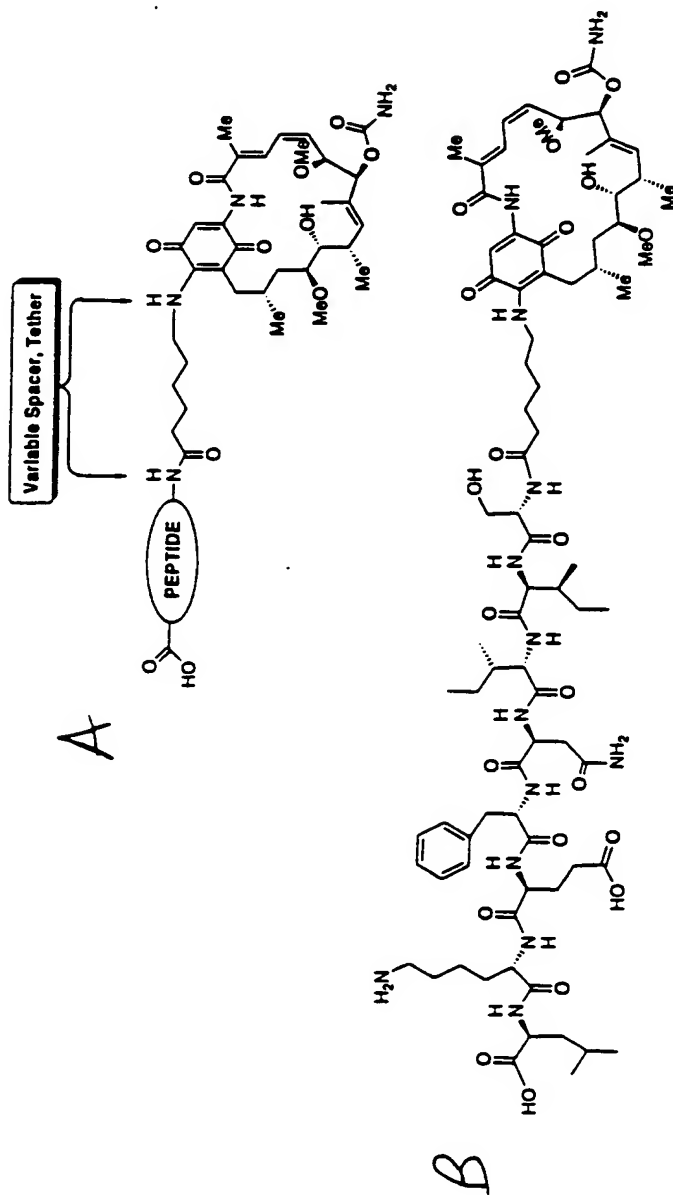
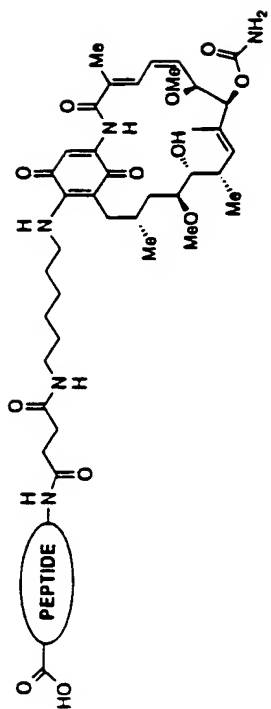




FIGURE 11C-D.

C



D

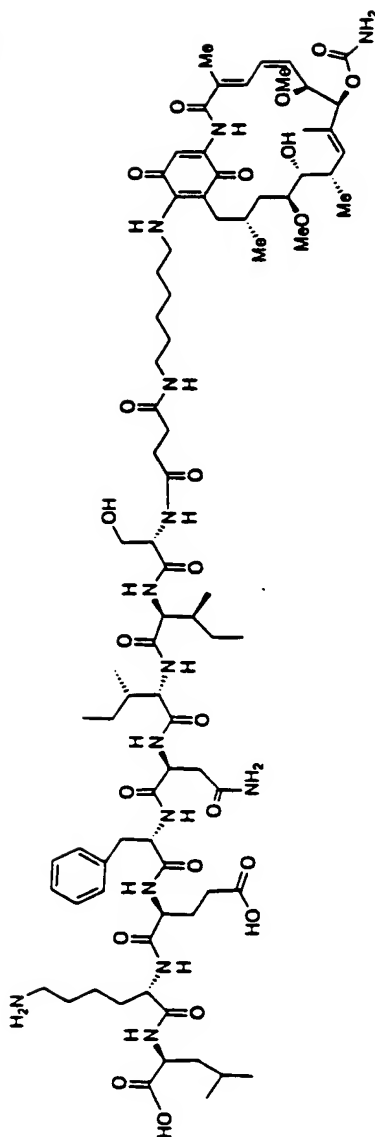
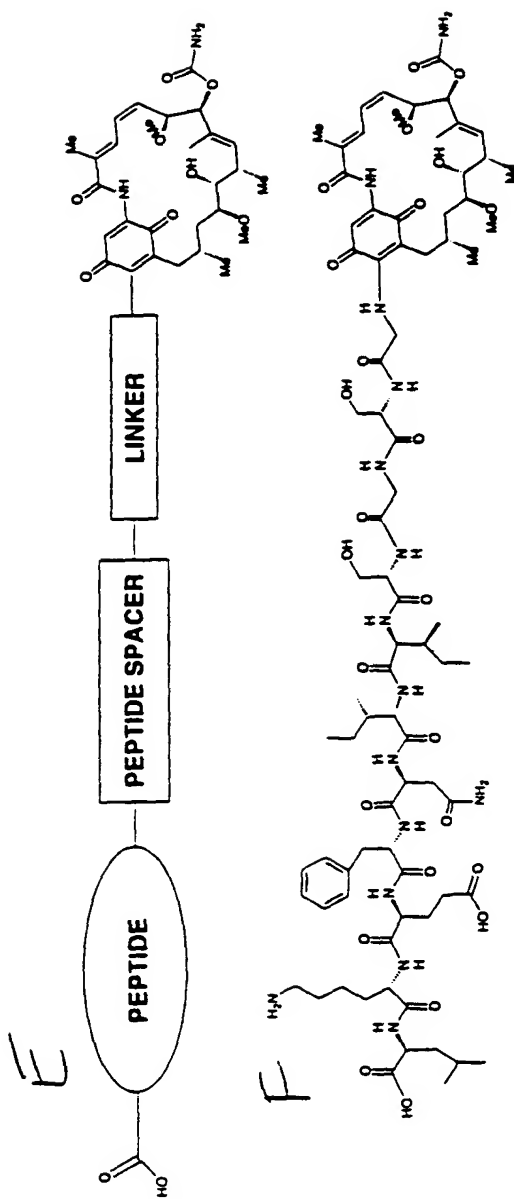


Figure 11 E-F



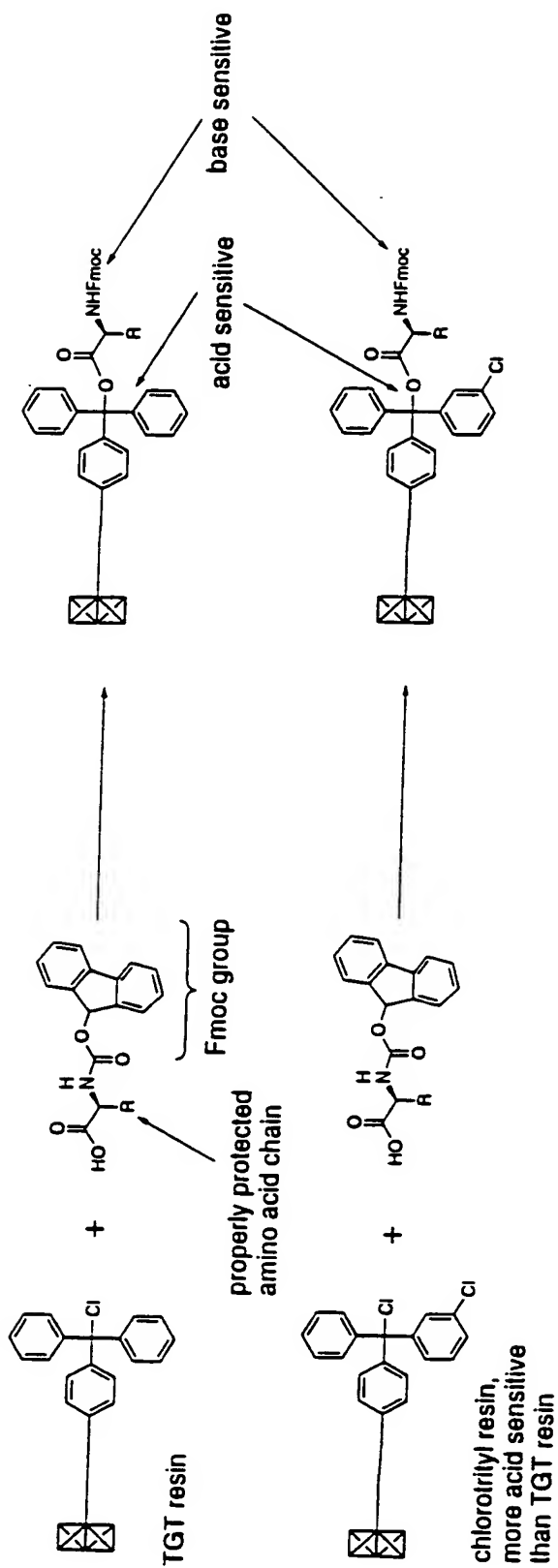


FIGURE 12.

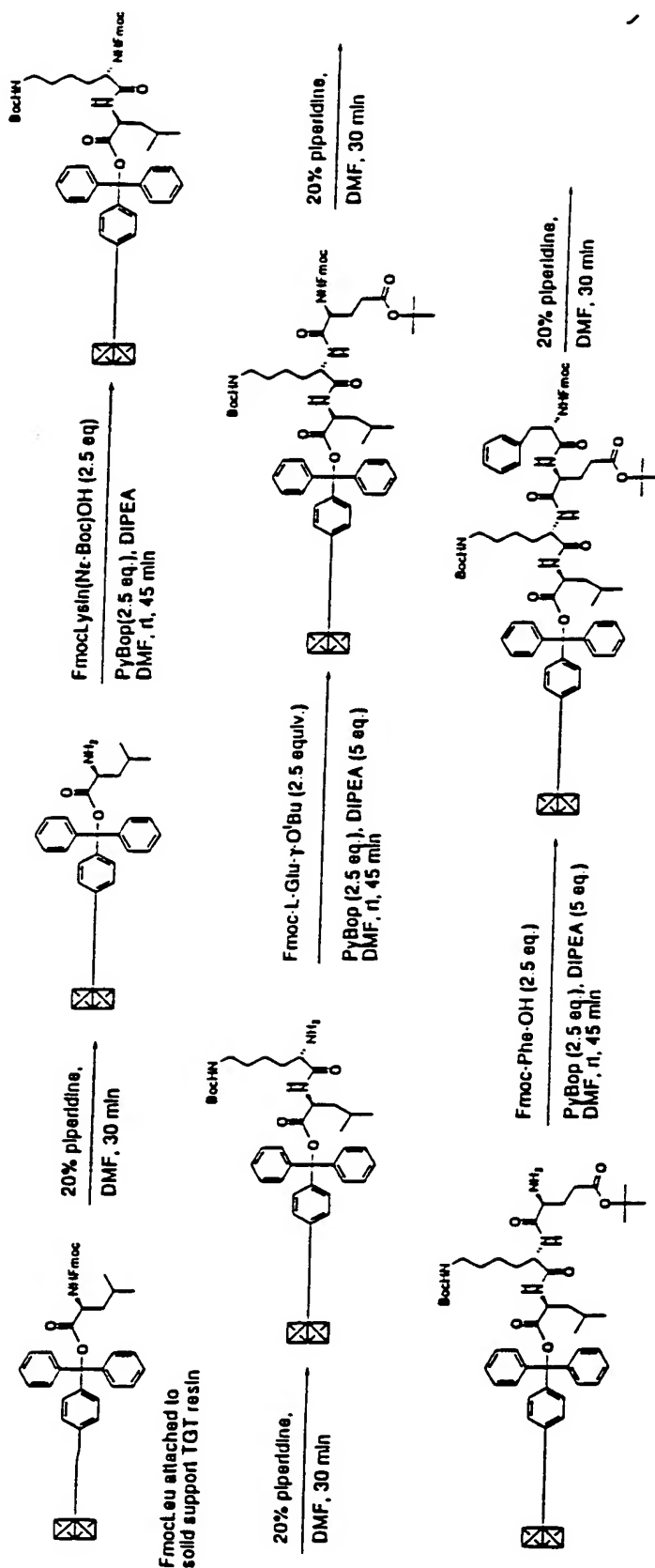
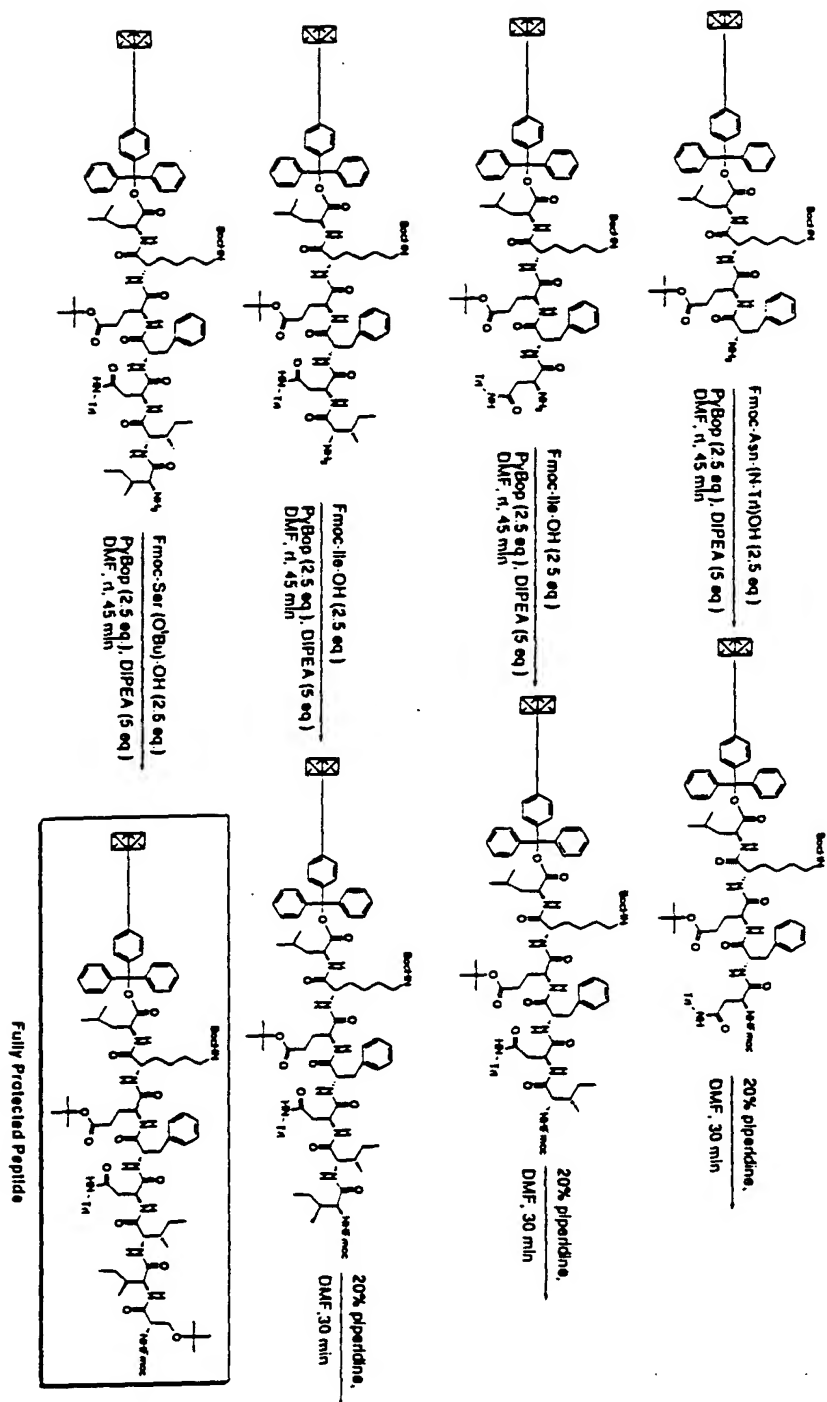
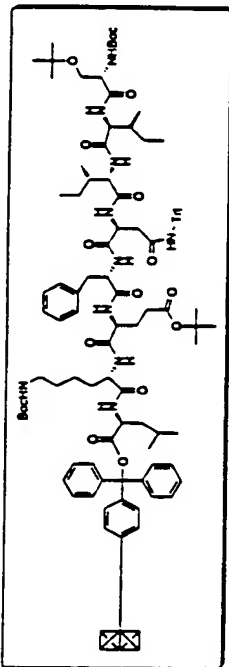
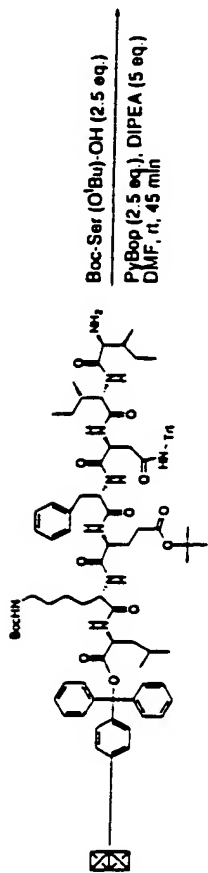


FIGURE 13A

Figure 13.B



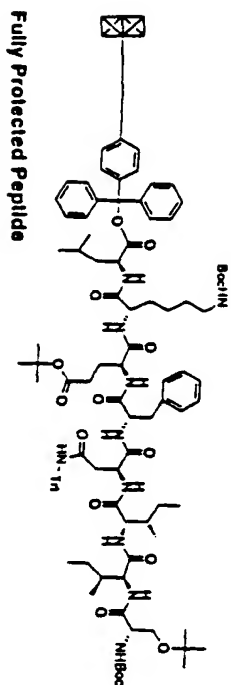


Fully Protected Peptide

FIGURE 14A



14B



a) 1% TFA, CH<sub>2</sub>Cl<sub>2</sub>, 2 min, rt  
b) Pyridine, methanol (1:9)  
c) purification

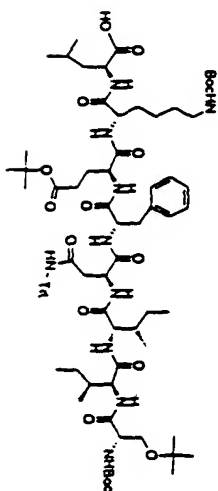


Figure 14B

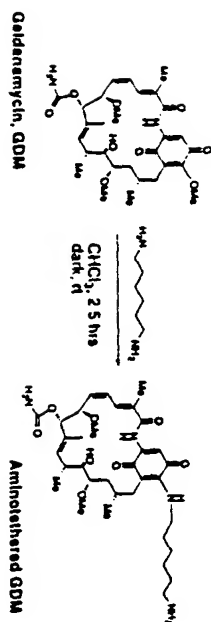
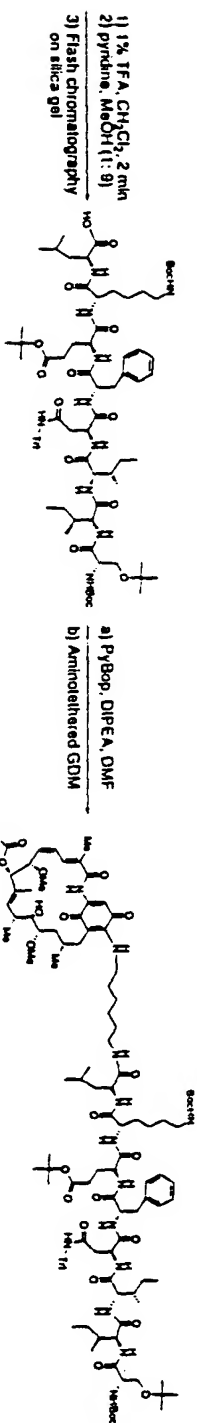
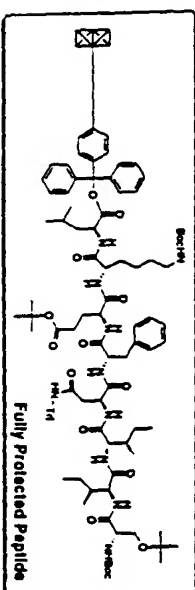
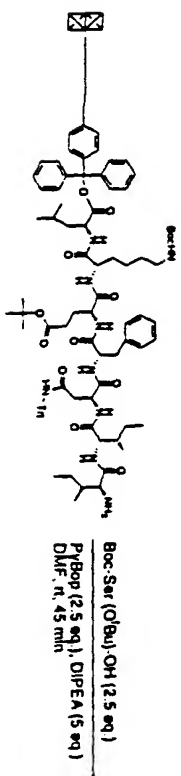
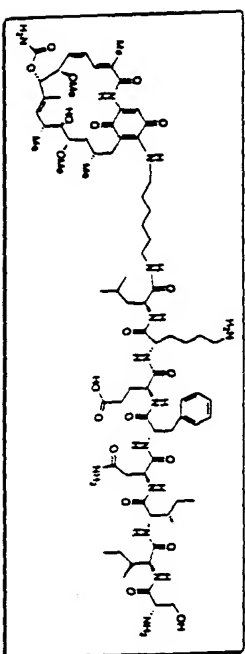


FIGURE 15.



1) DEPROTECTION:  
 85% TFA, 25% CH<sub>2</sub>Cl<sub>2</sub>, 2.5% TIPS  
 2) PURIFICATION





OCT 01 2002

FIGURE 16A.

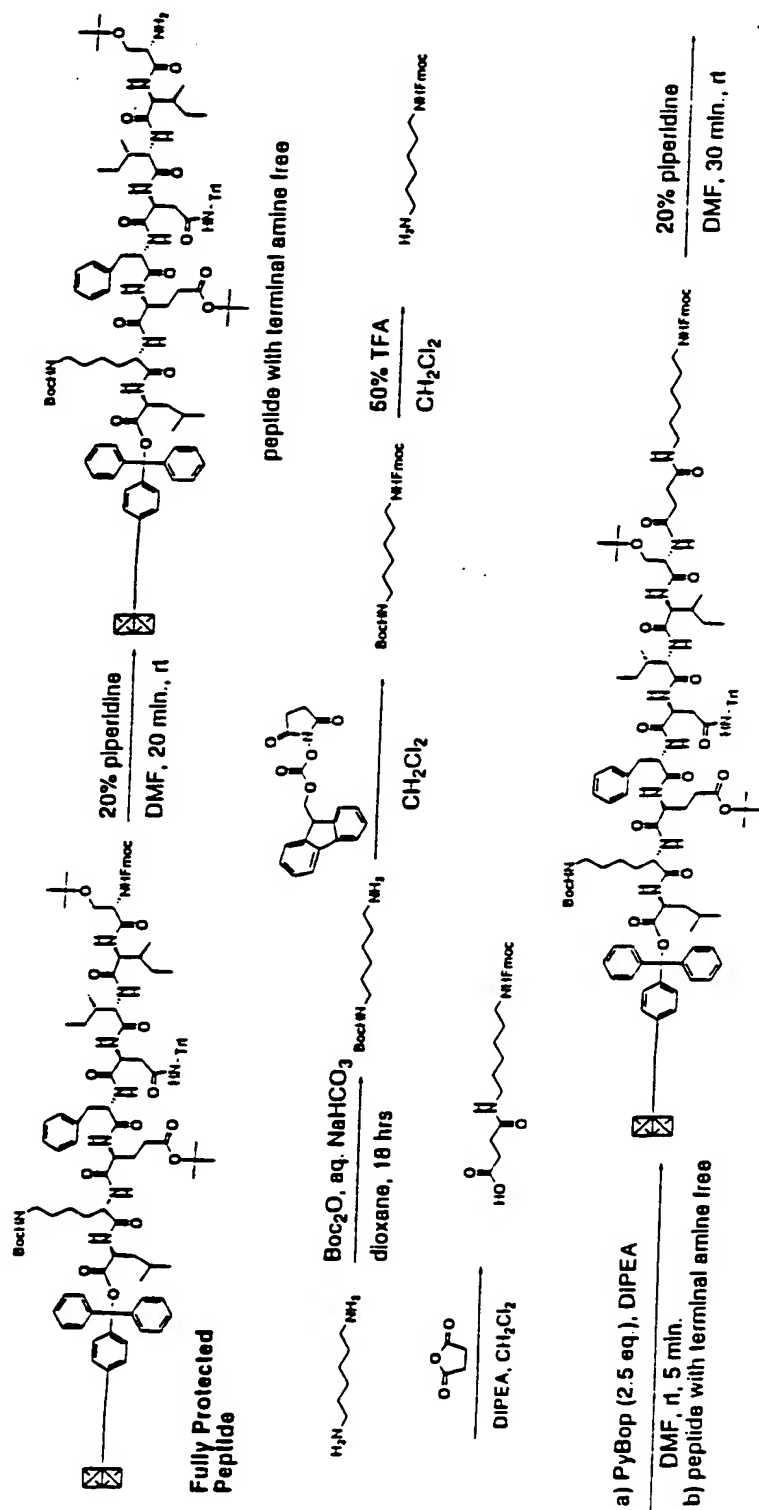
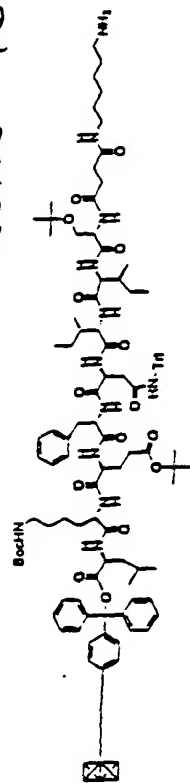
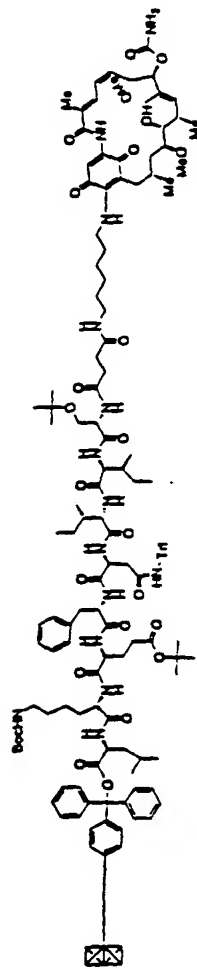


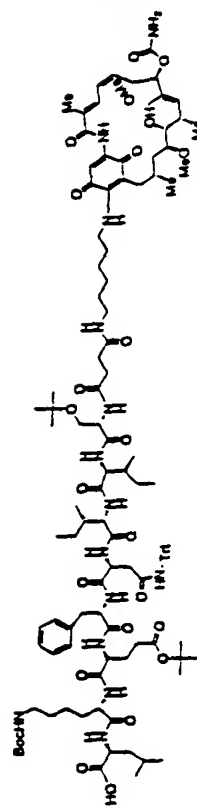
FIGURE 16B



GDM, DMSO, rt, Dark, 4-5 hours

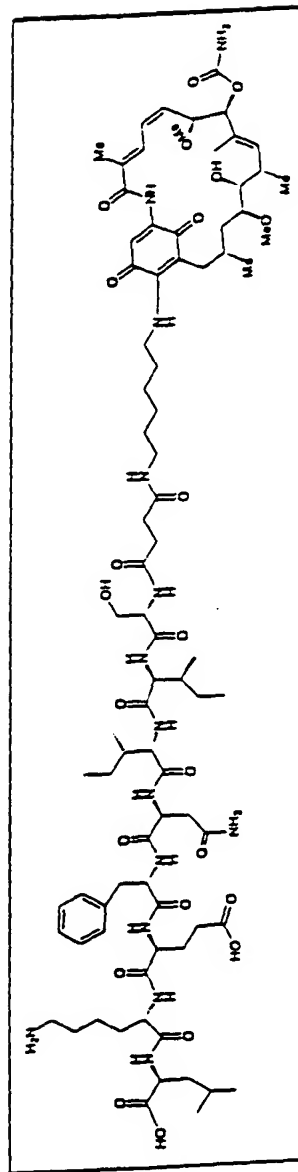


- 1) 1% TFA, CH<sub>2</sub>Cl<sub>2</sub>
- 2) Pyridine, methanol (1:8)
- 3) silica gel chromatography



a) 50% TFA, 40% CH<sub>2</sub>Cl<sub>2</sub>, 10% TIPS

b) Purification



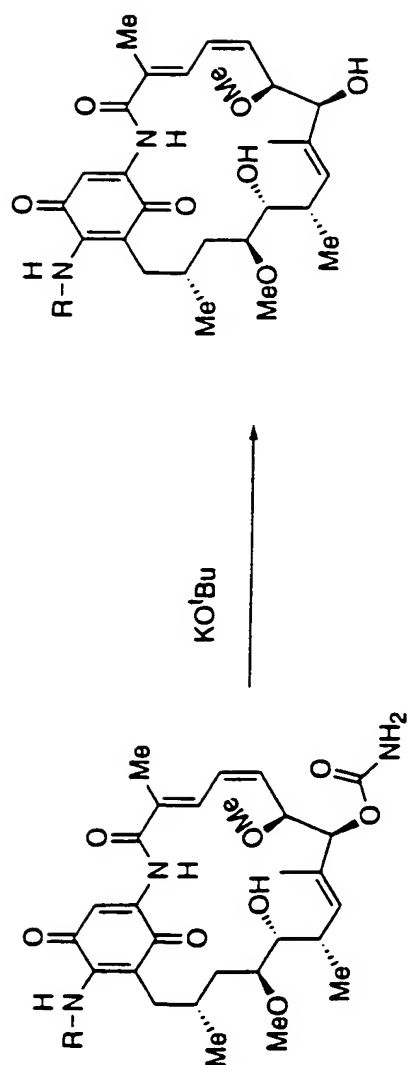


FIGURE 17A

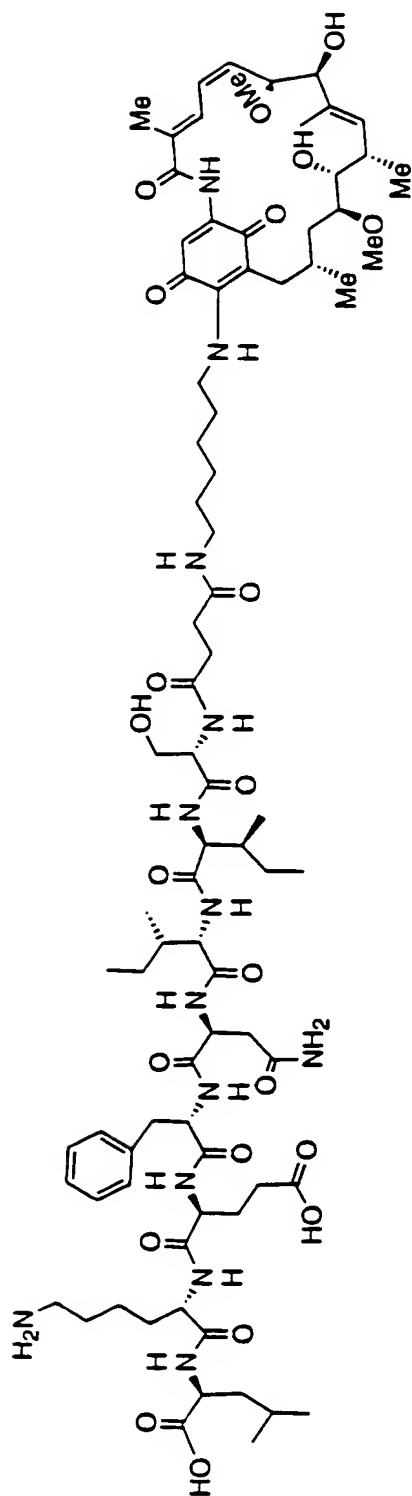


FIGURE 17B.

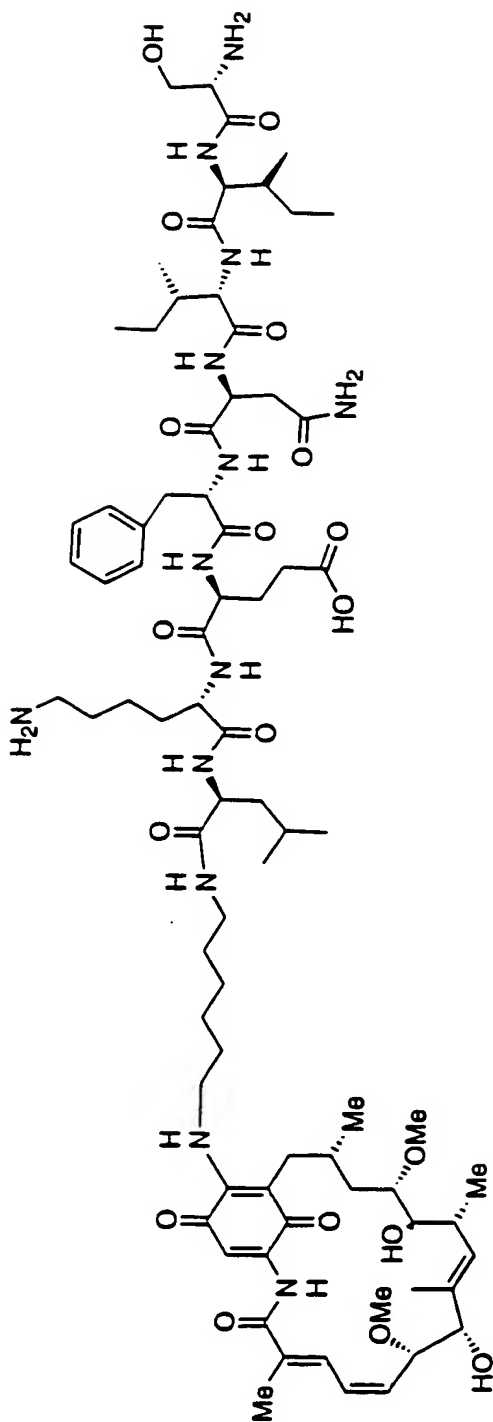


FIGURE 17C.

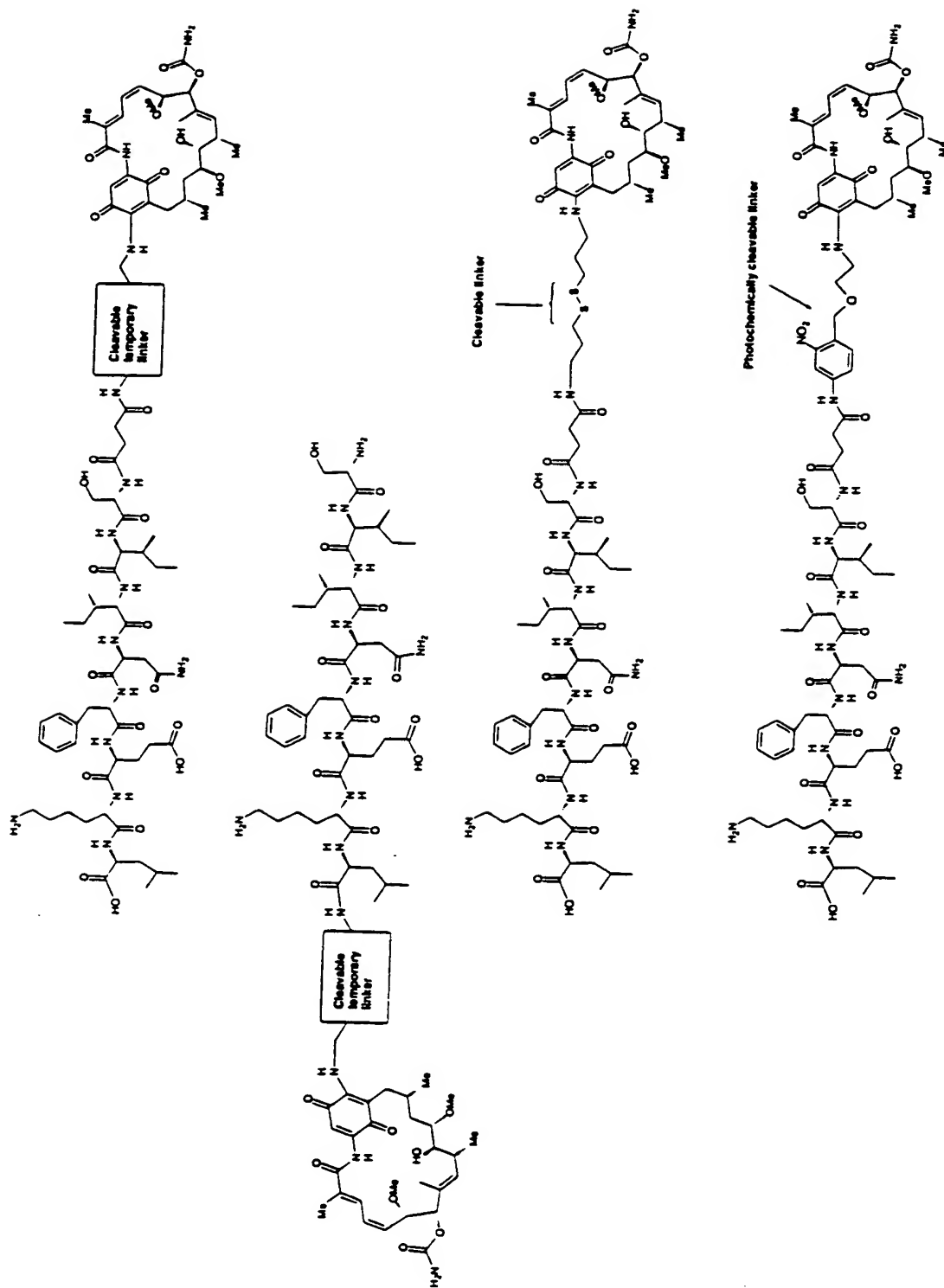
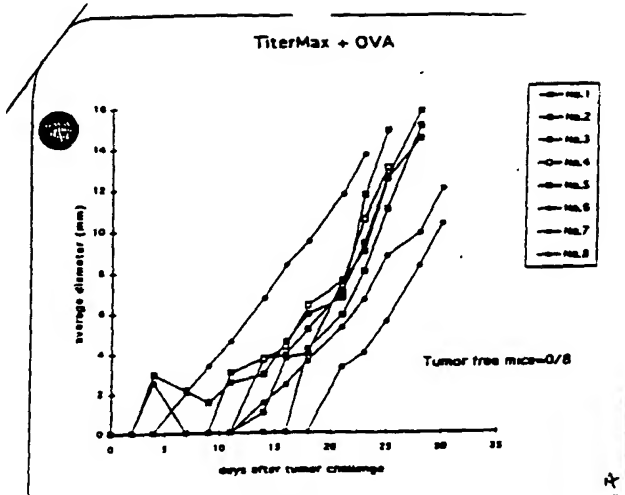
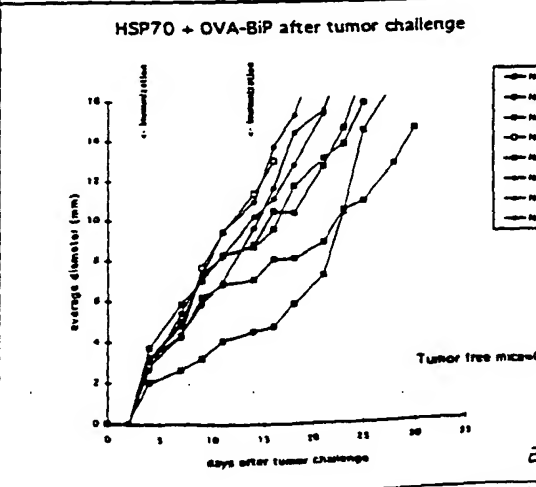
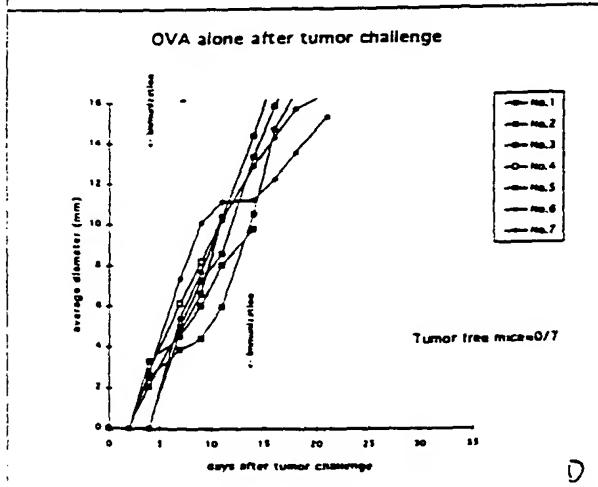
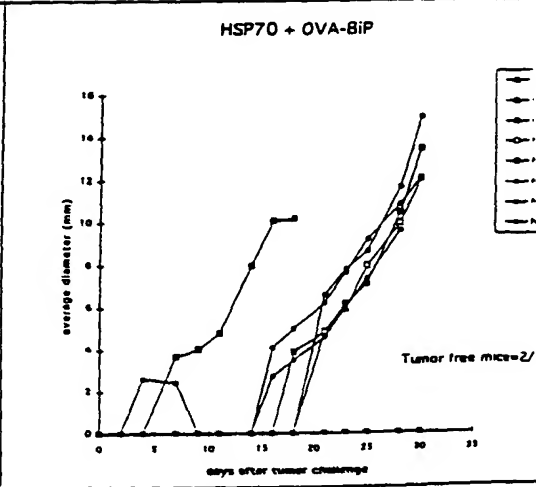
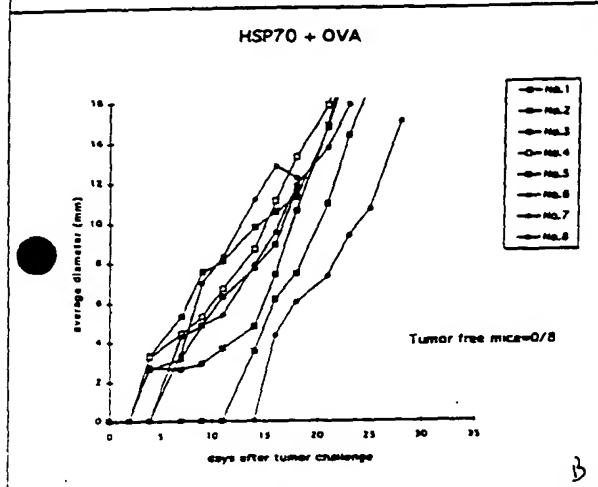


FIGURE 18



Immunization 7  
1/4 challenge  
 $1 \times 10^6$  MO4

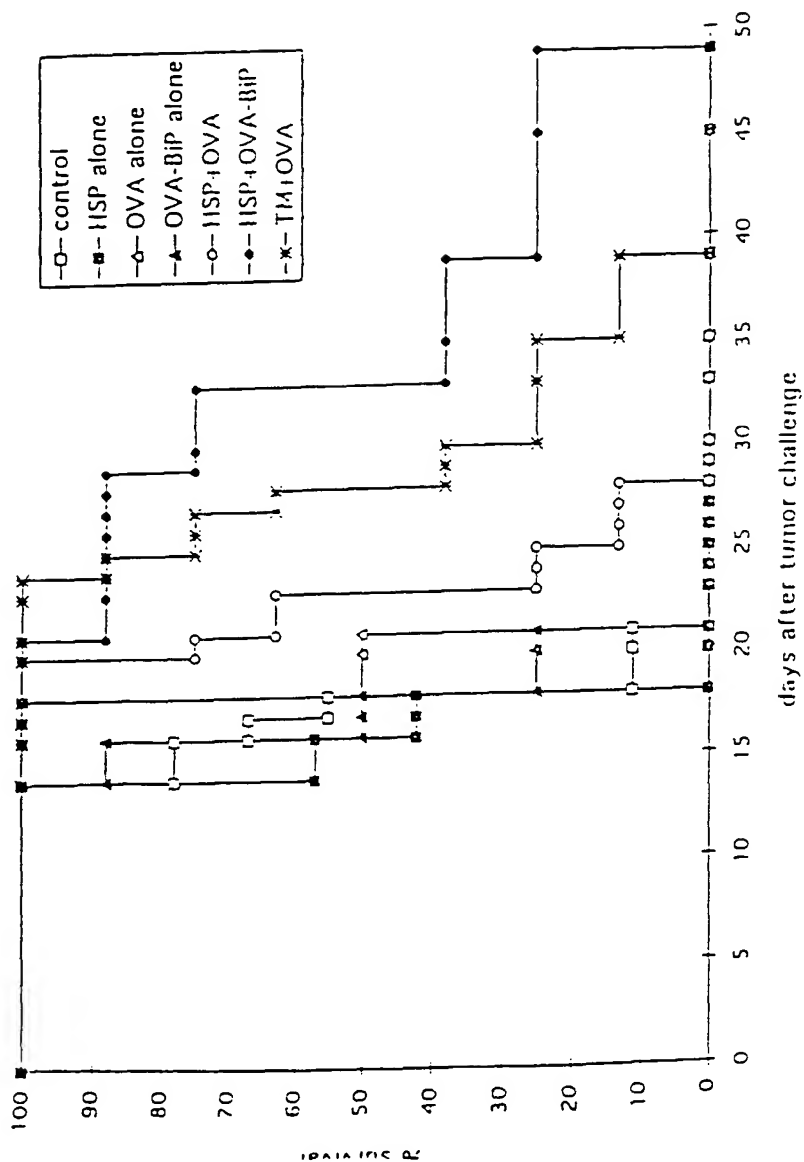
FIGURE 19A-E



Immunization 4  
1/11

Figure 19F.

Survival ratio of mice immunized 7 days before challenge with melanoma cells







Survival ratio of mice immunized 7 & 14 days after challenge with melanoma cells

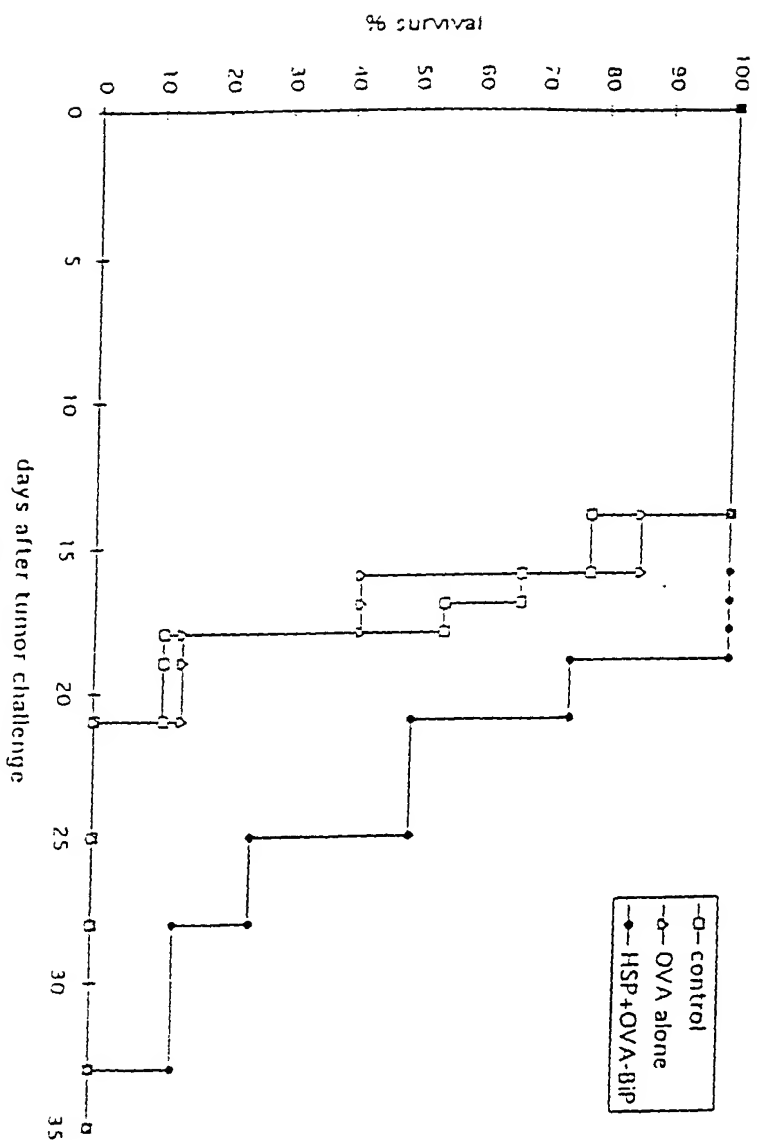


Figure 19G.

Figure 19G